

Immunization Coverage Report

State of Utah: 2007



Utah Department of Health
**IMMUNIZATION
PROGRAM**

Immunize for healthy lives

Immunization Coverage Report

State of Utah: 2007

Prepared by

David L. Foley

Immunization Research Analyst
Immunization Program

The following Utah Department of Health programs and individuals are extended special thanks for subject matter expertise, data resource, editing and consultations:

Immunization Program

Martee Hawkins

Janel Jorgenson

Carlie Shurtliff

Sheryl Stuewe

Data Resources Program

Shaheen Hossain

Karen Zinner

Office of Epidemiology

Rich Lakin

Bureau of EMS

Allan Liu

Bureau of Child Care Licensing

Brynn Steimle

USIIS Program

Sandra Schulthies

Child, Adolescent and School Health Program

Janna Forsgren

Karen Roylance

Utah Asthma Program

Patrick Lee

Utah Department of Health
Division of Community and Family Health Services
Bureau of Maternal and Child Health
Immunization Program

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The *Immunization Coverage Report, State of Utah 2007*, supports the mission and goal of state and local immunization programs:

... to improve the health of Utah's citizens through vaccinations to reduce illness, disability, and death from vaccine-preventable infections.

This annual immunization coverage report provides an overview of immunization information about Utah residents across the lifespan. Particularly, the immunization coverage status for Utah children and adults is highlighted. Although the report is not totally comprehensive, it is an attempt to gather immunization data from multiple, pertinent sources and present them in a simple, concise format. Information is added and updated each year according to recommendations by various stakeholders at the state and local level. Such updates enable easy access to the most current immunization data and assist local immunization programs in evaluating coverage areas and identifying gaps in services.

An ongoing major focus of immunization coverage remains the infant and early childhood population. According to the 2005 National Immunization Survey (NIS), Utah ranked 47th in the nation for the number of two-year olds fully immunized. The NIS measures the number of children 19-35 months of age who have completed the 4:3:1:3:3 (4 DTap, 3 Polio, 1 MMR, 3 Hib, 3 Hepatitis B) series by 24 months of age. Utah's current coverage rate of 71.3% lags behind the national rate. The national rate of 80.9% is an all-time high for immunization coverage levels exceeding the *Health People 2010* objective of 80% coverage level for two-year olds.

Because Utah rates were lower in the most recent survey, the focus of work continues to identify areas of weakness where efforts can be concentrated to affect significant improvements. To ensure this focus, Utah held the second annual statewide Immunization Summit in January 2007 that brought together all stakeholders to discuss methods and strategies to increase Utah's immunization rates.

Ongoing efforts to increase childhood immunization levels include a variety of interventions, such as: ensuring health care providers have current information on immunization best practices and implementation of a coordination project with the Intermountain Pediatric Society, enrolling health care providers in the Utah Statewide Immunization Information System (USIIS), and development of a new timing immunization schedule format which can help parents and providers know when a child needs an immunization. All these efforts combined can help to ensure Utah's children are protected from vaccine-preventable infections now and in the future.

We value your opinion. Please provide us your feedback about this report.

Contact Information:

Linda Abel, BSN, MPA
Immunization Program Manager
Utah Department of Health
PO Box 142001
Salt Lake City, Utah 84114-2001
Phone: (801) 538-9450
Fax: (801) 538-9440

For simplicity of organization, the 12 local health departments (LHDs) have been utilized in this report as the geographic boundaries of reporting service areas. Statewide information is also presented. For each service area, the information is divided into three broad categories: *Demographics*, *Early Childhood Immunization*, and *Child and School Immunization*. There are detailed descriptions of data contained within each of these categories.

Limited comments may follow a graph or chart, but the detailed footnotes will be found on the *Reference Notes*, page 78. These explanatory footnotes are intended to provide information on data sources, programs and limitations on data interpretation (i.e., across provider groups for CASA; Head Start reporting groups; etc.)

Where applicable, county specific information is presented. As some service areas may have a particular type of information available to report, that same type of information may not be available or applicable for reporting in another service area.

This year's report contains an expanded *Appendices* beginning on page 53. Reports pertaining to the 2005-2006 Utah County Study, Tooele WIC project, long-term care facility vaccinations, and reportable diseases have been updated. Additional data and information pertaining to influenza, tetanus, hepatitis B, varicella, the USIIS Birth Order Study, and Race/Ethnicity are also included in the *Appendices*. Information appearing in these sections varies from that reported in the body of the report, i.e., data from a limited geographic area, a sub-population group, survey data, and disease trends. When reviewing the disease trends of reportable diseases, it is important to remember that reporting varies among the different service areas.

Demographic information is vital to understanding the current health and socioeconomic situations of Utah's residents. Different factors, such as whether a family lives in a rural or urban section of the state, can have a significant impact on access to health care.

Demographic information is provided for each of Utah's health district regions regarding the following categories:

Population, Poverty Rate, and Health Insurance Status

The changing nature of Utah's population requires state immunization staff, public health officials, providers, and other public health workers to be increasingly familiar with the state's shifting demographic situation.

The health of a family is often affected by socioeconomic factors. Poverty can be an indirect contributor to disease and illness, including delayed immunizations. A clear understanding is necessary to identify, analyze, and move forward with appropriate targeted goals for immunizations across the lifespan.

Insurance status has a profound effect on access to adequate health care across the lifespan. Eligibility for families to qualify for Medicaid, Children's Health Insurance Program (CHIP), and Women, Infants and Children (WIC) assistance is based on federal poverty levels and age. Medicare eligibility is based on age.

The 2005 Utah Health Status Survey³ showed that 11.6% of Utah residents (all ages) had no health insurance.

The most current data available is included in this report, therefore the year in which the data was taken for each category does not always match. *Population* data are from calendar year 2006. *Medicaid* data are from Fiscal Year 2006. *Statewide Health Insurance Status* data are from 2005. *Poverty Rate* data, as well as local health district *Health Insurance Status* data, come from a pooling of 2004-2005 calendar years.

The Advisory Committee on Immunization Practices (ACIP) at the Centers for Disease Control and Prevention (CDC) has established a standard of comparison for immunization status. Up-to-Date at Age-Two is the percentage of children age two years (24 months) that has received all doses of the recommended vaccines at the recommended age. This standard is used across the United States by state immunization programs and provider sites to evaluate their effectiveness in protecting patients from vaccine preventable diseases as well as by schools and day cares to measure the immunization status of their enrollments. Information is presented regarding the results of utilizing this standard in local health departments and private provider offices. Information is also presented regarding the geographic distribution and availability of health care provider sites families might access for immunizations and primary health care in a medical home.

CoCASA Assessment: Private Providers and LHDs

The vaccine series used for comparison is established by the Advisory Committee on Immunization Practices (ACIP). Currently, the series for evaluation is in transition between **4:3:1:3:3**, which consists of 4 doses of Diphtheria, Tetanus, Pertussis (DTaP); 3 doses of Polio (IPV); 1 dose of Measles, Mumps, Rubella (MMR); 3 doses of Hib and 3 doses of Hepatitis B and **4:3:1:3:3:1**, which includes one dose of Varicella.

Comprehensive Clinic Assessment Software Application (CoCASA) is used to assess the immunization rate. While CoCASA assessment procedures are standardized, all private providers may not be evaluated on an annual basis, as they are determined on compliance status and previous CoCASA rates. All LHDs are assessed annually.

The Vaccines for Children (VFC) Program, administered by the CDC through the National Immunization Program (NIP), provides free vaccines to providers (public and private) serving eligible children.

LHDs may contain multiple counties within its service area. Dramatic demographic differences may exist, so the Up-to-Date at Age-Two is reported in smaller components for more specific information.

Head Starts, Child Care Facilities, Preschools, Providers, School Nurses, and Facility Types

Required Early Childhood Immunizations are: Diphtheria, Tetanus, Pertussis, Polio, Measles, Mumps, Rubella, Haemophilus Influenza Type B, and Hepatitis B.

Child care facilities, preschools and Head Start programs report immunization information in the same manner as school districts to the Utah State Office of Education (USOE).

The geographic distribution of health care providers (i.e., hospitals, community health center clinics, private providers) correlates strongly with families' ability to access and receive immunizations and primary health care in a medical home. Data is reported from the Women Infant and Children's Program (WIC), which provides assistance and education to families regarding healthy foods and preventive health care. Also reporting data are Community Health Clinics (CHC) and Rural Health Clinics (RHC).

There is an additional page in the *Early Childhood Immunization* section in this year's Coverage Report. The first chart (three charts on the "State of Utah" page) on these pages illustrates the type of up-to-date (UTD) status which includes "UTD at age 2", "Late UTD", "UTD one more visit" and "Too late for UTD". These data are reported by public and private provider at the State level and by public provider at the LHD level. The "State of Utah" page also includes one chart representing data from Federally Qualified Health Centers. The second set of charts illustrates the number and type of USIIS providers and UTD status according to USIIS records.

Type of Immunization UTD Status

While it is true that Utah immunization UTD at age two years rates are not where we would like them, progress in a couple of basic areas may increase childhood immunization coverage. There is a large segment of the population that is Late UTD and an even larger population that can be brought UTD with one more visit. Hopefully, targeted efforts toward children that can be brought UTD with one more visit can protect many more children, decrease the number who are late UTD, and improve our state-wide immunization rates at age two years. Late UTD indicates that the child was immunized at the time of the assessment, but was not UTD at age two years. Too Late for UTD does not indicate that the child can't receive immunizations, but that the child was not immunized by the assessment date and can not be brought UTD at age two years. For simplicity sake, and to include a broad number of immunizations, these data are based on the 4:3:1:3:3:1 series. This data comes exclusively from Co-CASA assessments and does not represent the entire population.

Utah Statewide Immunization Information System (USIIS)

USIIS records are vital to assist parents and medical providers in monitoring and ensuring their children and patients are UTD on all immunizations. These electronic records help track patients as they move geographically, change insurance or change their medical home. Reporting UTD status according to USIIS records consolidates the reports from local health departments, community health clinics, and various private providers.

For this report, USIIS UTD status was organized by geographical area according to zip code and is reported by Service Area. UTD percentages are for 2005 and correspond with the same time frame as the most recent National Immunization Survey (NIS). The data set includes all children in the database with at least two immunizations. Data limitations include the following factors: not all providers utilize USIIS, it is possible that even among USIIS providers not all vaccinations are entered, patient records may be incomplete, and patients may receive vaccinations in several different counties over the course of their record.

The 2005 Economic Report to the Governor (2005 Economic Report to the Governor, Governor's Office of Planning and Budget, Demographic and Economic Analysis) indicates that according to 2004 Census Bureau population estimates, nationally Utah has a larger percent of its total state population in the preschool age group than any other state. In Utah, 9.8% of the total population is 0 through four years of age and 21.8% of the total population is five through 17 years of age (ibid.).

Exposure to groups of people of any age increases the risk of infectious disease. More than two-thirds of children younger than 6 years and almost all children older than 6 years spend significant time in child care and school settings outside of the homes. The Utah Immunization Rule for Students (R396-100) went into effect in 1975 to implement consistent requirements to protect children attending school.

School Entry (Kindergarten & 7th Grade) & Second Dose Measles/Mumps/Rubella (K – 12)

Required Kindergarten Entry Immunizations are: Diphtheria, Tetanus, Pertussis, Polio, Measles, Mumps, Rubella, Hepatitis B, Hepatitis A, and Varicella.

Children entering seventh grade, beginning May 2007, must have: Hepatitis B, Varicella and Tdap.

Children grades K-12 are required to have two doses of measles/mumps/rubella vaccine.

Every November 30th, by statute, all schools report student immunization information to the Utah Immunization Program. Conditional enrollment immunization information is also reported during the school year. By collaborative agreement with UDOH, school district immunization reports are provided to the Utah State Office of Education (USOE).

WIC, Child Care and Schools, Enrollments

Children attending daycare facilities, preschools, and school settings have increased chances for exposure to illness.

The 12 Utah Head Start (HS) programs serve children through federal grants for Head Start, Early Head Start, Migrant Head Start and American Indian Head Start. HS program areas do not correspond to LHD geographic service areas. Some data will have overlapping boundaries.

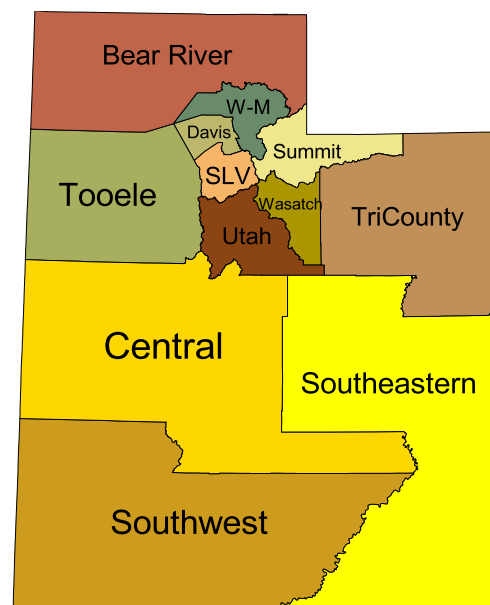
Accurate WIC, child care, and Head Start enrollment data for 2006 was not available at the time of print, therefore 2005 data is included once again.

Influenza and Pneumococcal

The incidence of childhood vaccine-preventable diseases has declined dramatically, but similar success among adults has not been achieved. Adults suffer the vast majority of vaccine-preventable disease in the U.S. Vaccines remain underutilized, especially among persons at high risk for infection and disease complications, and among certain racial/ethnic populations.

The 2006 Behavioral Risk Factor Surveillance System (BRFSS) survey results on influenza and pneumococcal immunization data have been included. Appendix C includes 2006 long term care and assisted living facility patient and employee immunization information reported to the Immunization Program.

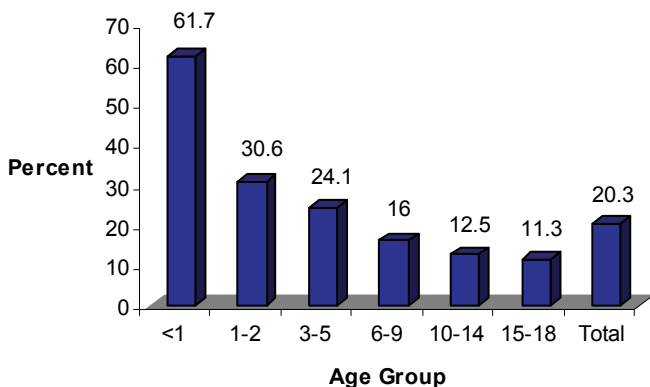
Population 2006 ¹	Number	% of Total
Total Population	2,582,371	
17 and Under	804,569	31.2%
18 to 34	746,638	28.9%
35 to 49	474,698	18.4%
50 to 64	339,153	13.1%
65 and Over	217,313	8.4%
Poverty 2004-2005 ²	Number	% of Total
Total 0-100% Poverty	256,400	10.26%
17 and Under	95,000	12.18%
18 to 34	90,300	12.35%
35 to 49	39,800	8.63%
50 to 64	13,200	4.19%
65 and Over	15,700	7.45%
Total 101-200% Poverty²	590,800	23.64%
17 and Under	221,500	28.40%
18 to 34	187,000	25.57%
35 to 49	87,200	18.88%
50 to 64	36,500	11.56%
65 and Over	58,800	27.97%



Population 2006 ¹	Number	% of Total
Total 0-18	843,061	
<1	52,080	6.2%
1-2	102,611	12.2%
3-5	148,363	17.6%
6-9	178,454	21.2%
10-14	201,818	23.9%
15-18	159,735	18.9%

Medicaid Eligible Population by Age 2006⁴

Statewide Medicaid Eligible 0-18 = 171,244



Insurance 2005	Number	% of Total
Total Uninsured³	292,800	11.6%
18 and Under ²	70,700	8.6%
19 to 34 ²	134,800	19.3%
35 to 49 ²	63,500	13.6%
50 to 64 ²	28,000	8.6%
Selected Insurance Type ³	Number	% of Total
Medicare	236,400	10.6%
CHIP*	43,000	5.7%
Insured, Service Not Covered	179,000	8.0%

*Children's Health Insurance Program, Ages 0 to 18

State LHDs: Up-to-Date at Age Two by Antigen 2006⁵

	4 DTaP	3 Polio	1 MMR	3 Hib	3 Hep B	1 Varicella	4:3:1:3:3	4:3:1:3:3:1
State LHDs	75%	91%	90%	90%	90%	87%	71%	69%

Up-to-Date at Age Two (4:3:1:3:3)⁵

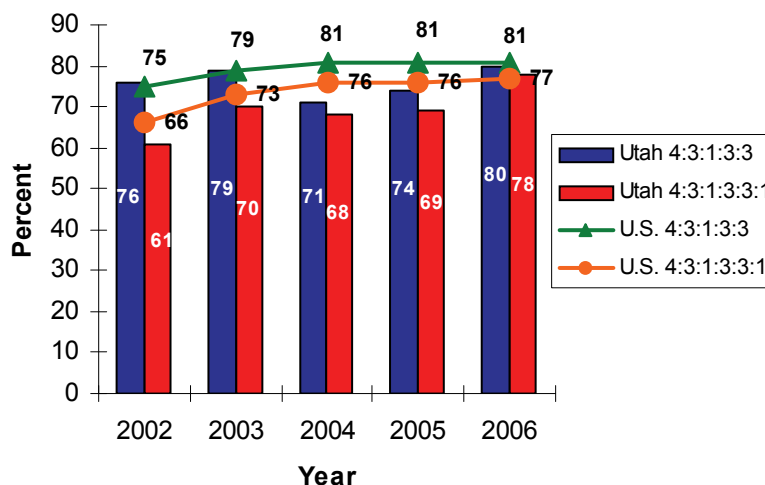
	2002	2003	2004	2005	2006
Private VFC Providers*	77%	53%	58%	64%	51%
FQHC/RHC	64%	30%	49%	67%	34%
Local Health Dept	87%	77%	73%	74%	71%

*Site visit assessment rates are standardized using CASA, but private provider assessments may not be annual and are only done for VFC providers

Health Care 2006⁵

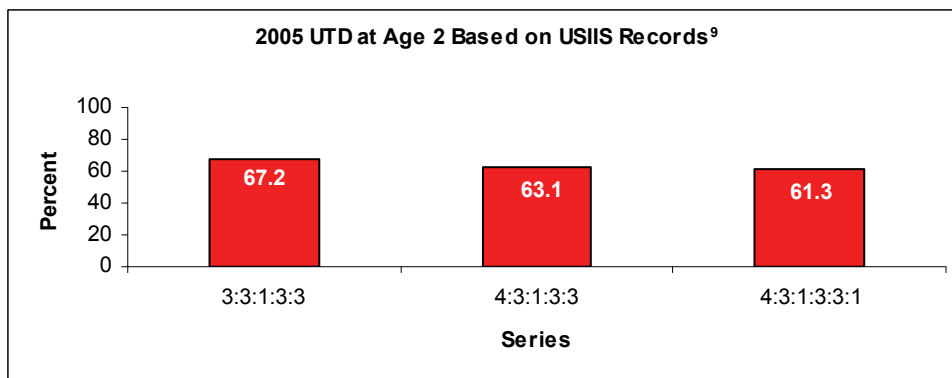
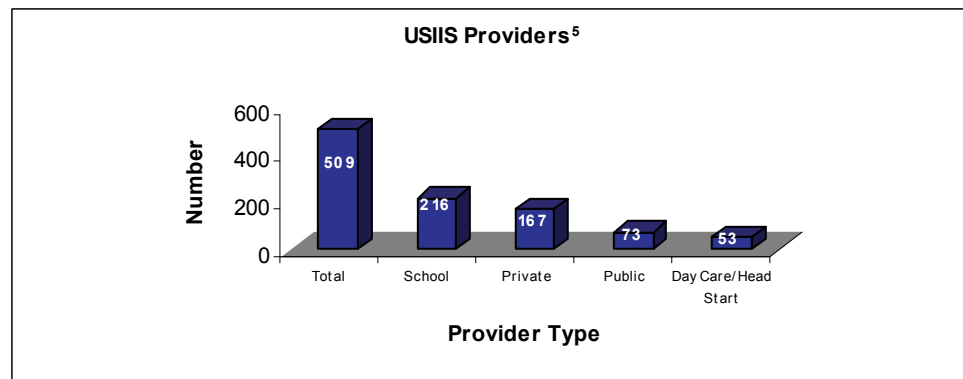
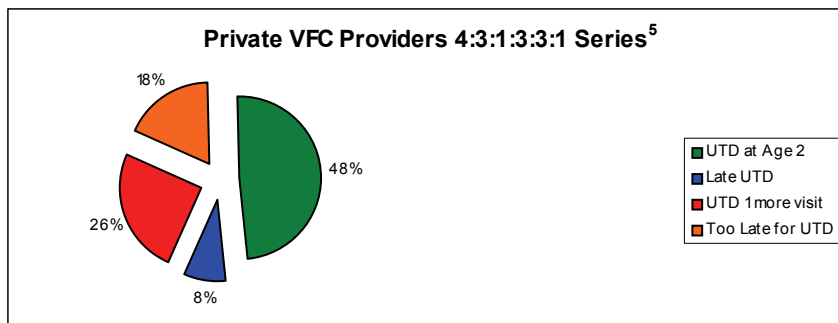
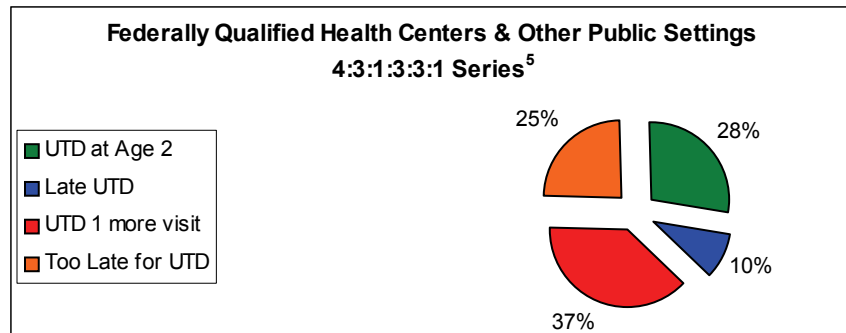
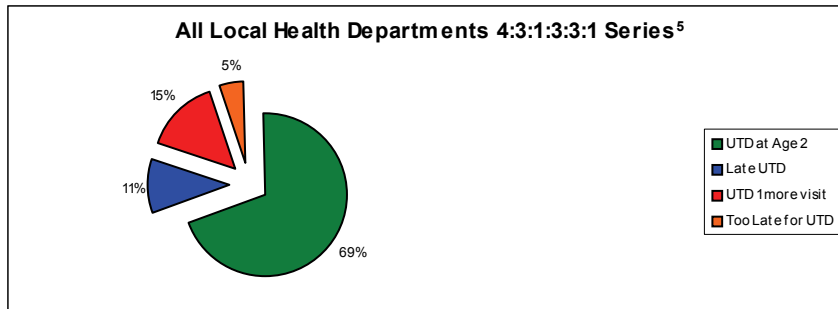
Providers/Facilities	Number
Private VFC Providers	269
Public School Nurses	132
Private/Charter School Nurses	54
Public Medical Clinics ⁶	38
Hospitals ⁶	43
Long Term Care and Assisted Living Centers ⁷	262
Local Health District Offices ⁶	49

NIS⁸ Coverage Status 2002-2006 Utah and U.S.



Utah NIS Rank⁸

Year	4:3:1:3:3	4:3:1:3:3:1
2002	29th	33rd
2003	29th	28th
2004	49th	43rd
2005	47th	41st
2006	25th	20th



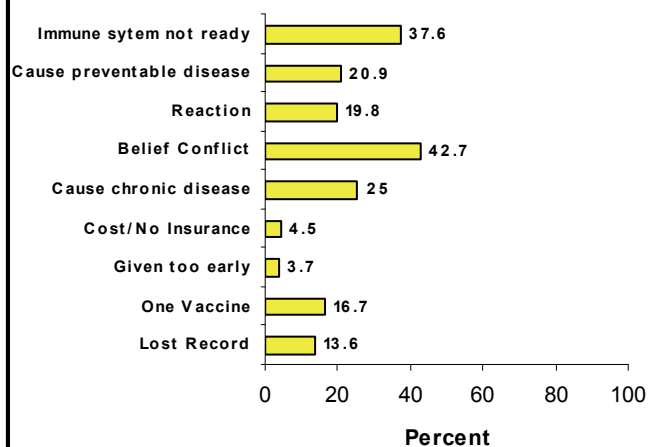
Child & School Health 2005

Child & School Health	Clinics/ Facilities	Enrollment
WIC Women ¹⁰	53	17,764
WIC Infants ¹⁰	53	16,845
WIC Children ¹⁰	53	32,462
Child Care ¹¹	423	29,869
Head Start ¹²	197	6,011
Public Schools ¹³	758	506,449
Private/Charter Schools ¹³	173	35,676

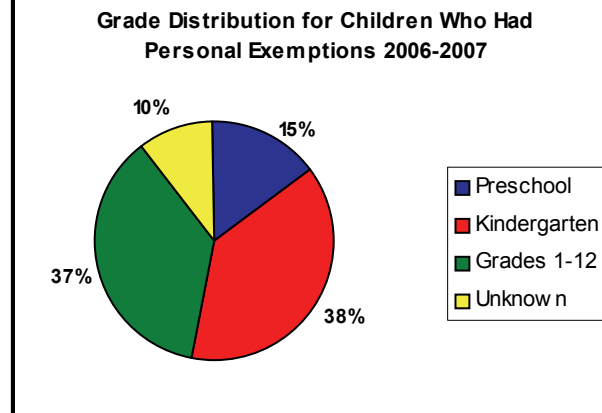
Immunized for School 2006⁵

	Adequately Immunized	Total Exemptions
Child Care Facilities and Preschools	91.9%	1.3%
Head Start Centers	93.9%	1.7%
School Entry (Kindergarten)	81.6%	2.8%
Second-Dose Measles (K-12)	97.0%	2.1%
7th Grade Entry	91.7%	2.7%

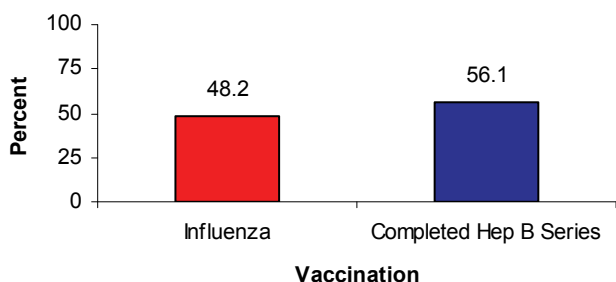
State Exemption Survey 2006-2007⁵



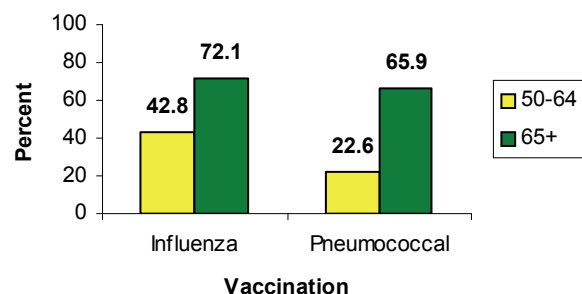
Personal Exemptions by Grade⁵



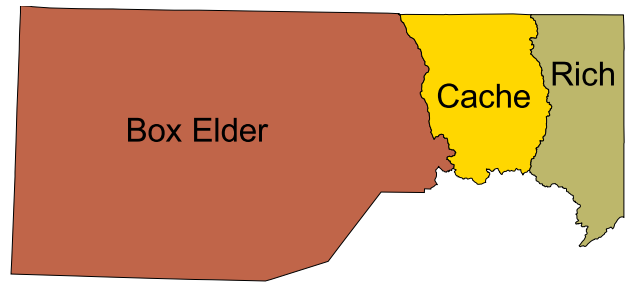
Employee Immunizations at Long Term Care Facilities 2006⁷



Influenza* & Pneumococcal Vaccinations 2006¹⁴



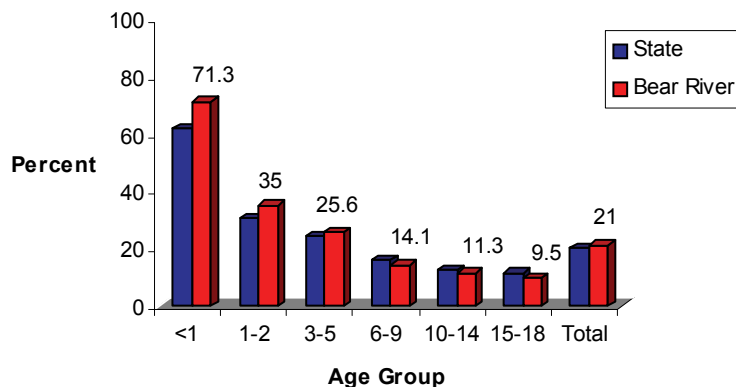
Population 2006 ¹	Number	% of Total
Total Population	151,688	
17 and Under	48,779	32.2%
18 to 34	49,195	32.4%
35 to 49	24,137	15.9%
50 to 64	17,316	11.4%
65 and Over	12,261	8.1%
Poverty 2004-2005 ²	Number	% of Total
Total 0-100% Poverty	15,200	10.26%
17 and Under	4,200	8.94%
18 to 34	7,200	14.85%
35 to 49	1,600	6.80%
50 to 64	800	4.68%
65 and Over	900	7.19%
Total 101-200% Poverty²	52,600	35.47%
17 and Under	19,400	40.72%
18 to 34	20,600	42.42%
35 to 49	7,600	31.73%
50 to 64	2,100	12.66%
65 and Over	3,100	25.43%



Population 2006 ¹	Number	% of Total
Total 0-18	51,074	
<1	3,301	6.5%
1-2	6,511	12.7%
3-5	9,202	18.0%
6-9	10,896	21.3%
10-14	11,685	22.9%
15-18	9,479	18.6%
Population 2006 ¹	Number	% of Total
Box Elder	45,358	29.9%
Cache	104,245	68.7%
Rich	2,085	1.4%

Medicaid Eligible Population by Age 2006⁴

Bear River Medicaid Eligible 0-18 = 10,744



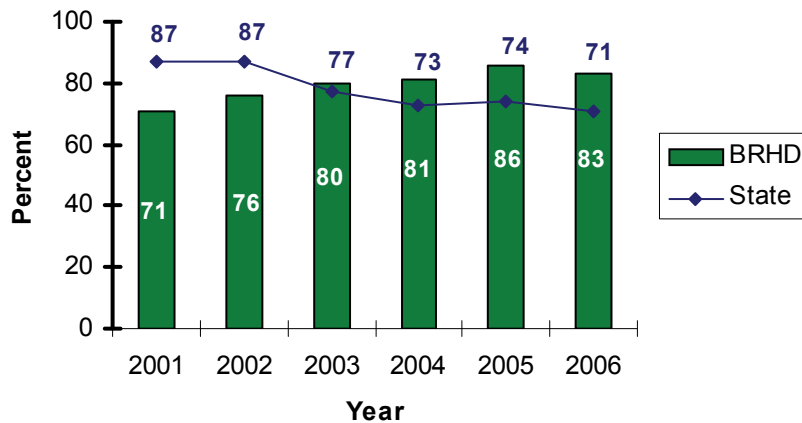
Insurance 2005	Number	% of Total
Total Uninsured³	14,900	9.94%
18 and Under ²	3,200	6.4%
19 to 34 ²	8,800	18.8%
35 to 49 ²	1,900	7.7%
50 to 64 ²	1,600	8.2%
Selected Insurance Type ³	Number	% of Total
Medicare	13,200	9.8%
CHIP*	2,300	4.5%
Insured, Service Not Covered	11,300	8.4%

*Children's Health Insurance Program, Ages 0 to 18

Up-to-Date at Age Two by Antigen 2006⁵

County	4 DTaP	3 Polio	1 MMR	3 Hib	3 Hep B	1 Varicella	4:3:1:3:3	4:3:1:3:3:1
Box Elder	91%	98%	98%	98%	91%	95%	84%	81%
Cache	91%	100%	98%	100%	95%	100%	86%	86%
Rich	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A
BRHD	89%	97%	97%	97%	92%	95%	83%	82%

Bear River LHD & State CASA UTD at Age 2 on 4:3:1:3:3 2001-2006⁵



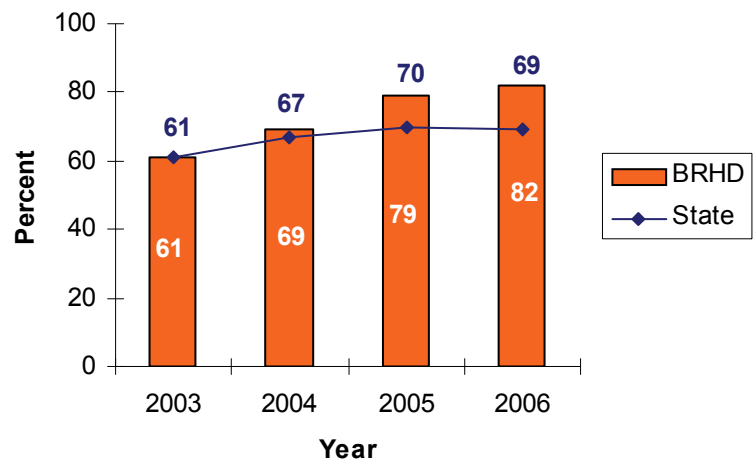
Private VFC Providers Up-to-Date at Age Two (4:3:1:3:3)⁵

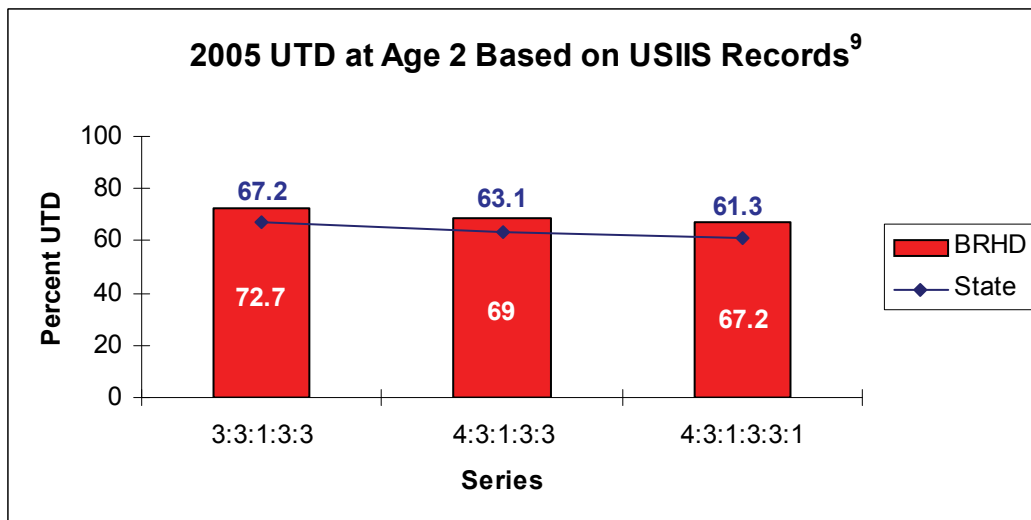
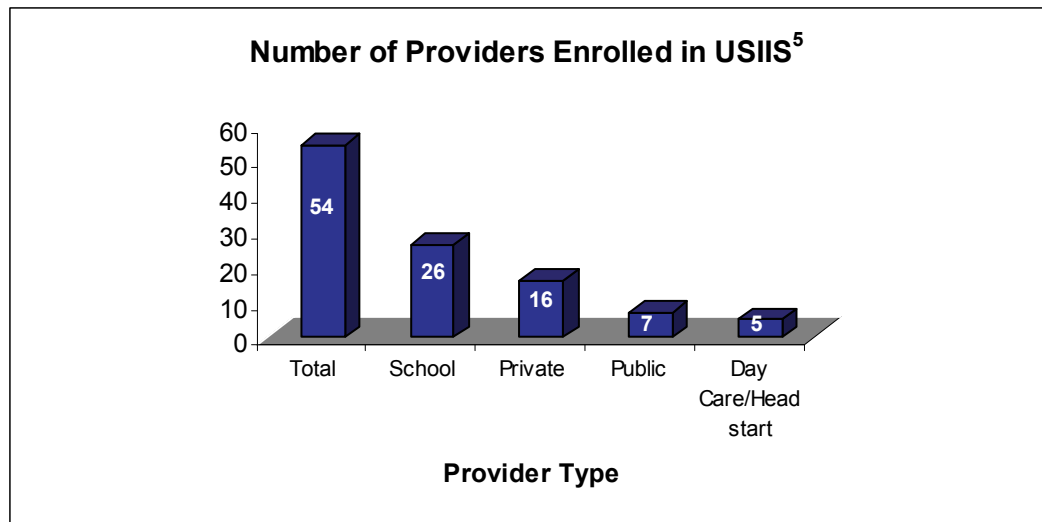
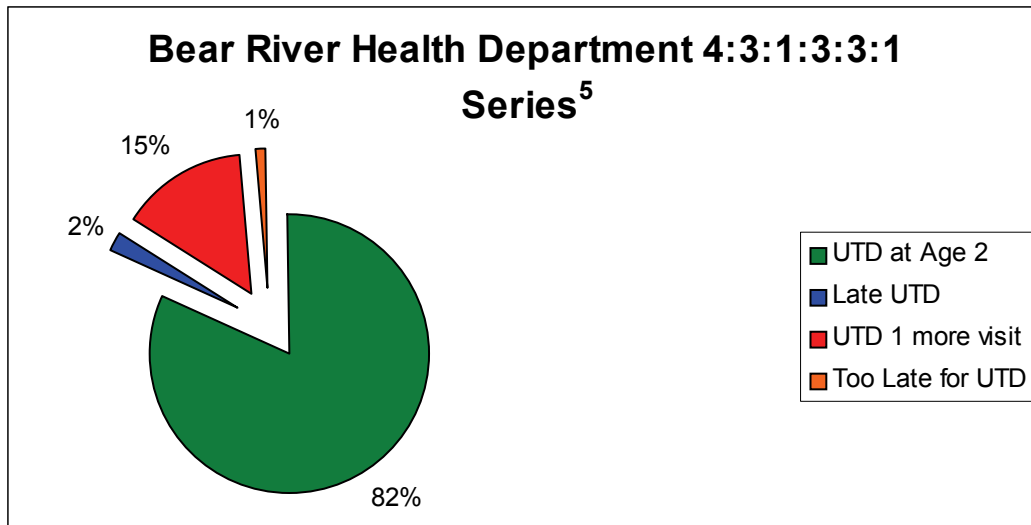
2002	56%
2003	56%
2004	59%
2005	66%
2006	47%

Health Care 2006⁵

Providers/Facilities	Number
Private VFC Providers	18
Public School Nurses	7
Private/Charter School Nurses	4
Public Medical Clinics ⁶	2
Hospitals ⁶	3
Long Term Care and Assisted Living Centers ⁷	17
Local Health District Offices ⁶	5

Bear River LHD CASA UTD at Age 2 4:3:1:3:3:1 2003-2006⁵

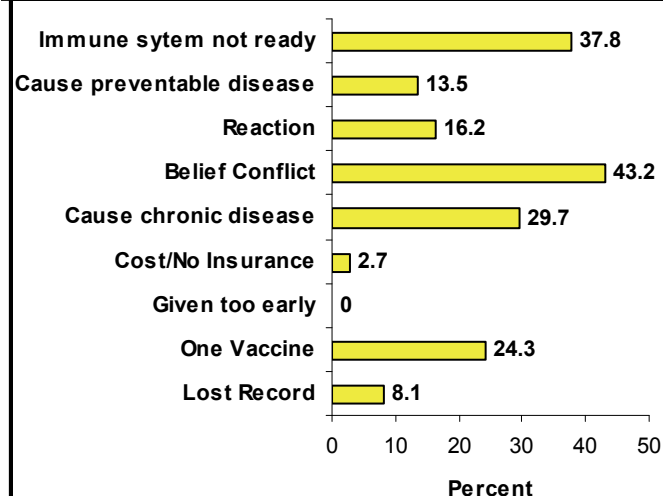




Adequately Immunized by School District 2006⁵

	Box Elder		Cache		Logan City		Rich	
Bear River	Adequate Immune	Total Exempt	Adequate Immune	Total Exempt	Adequate Immune	Total Exempt	Adequate Immune	Total Exempt
School Entry Kindergarten	84.7%	2.2%	84.8%	1.1%	87.5%	2.2%	100%	0%
Second-Dose Measles (K-12)	98.4%	1.6%	98.2%	1.1%	97.1%	1.4%	98.6%	1.0%
7th Grade Entry	96.4%	3.3%	95.6%	2.3%	90.7%	1.7%	98.0%	0%

School Exemption Survey 2006-2007⁵



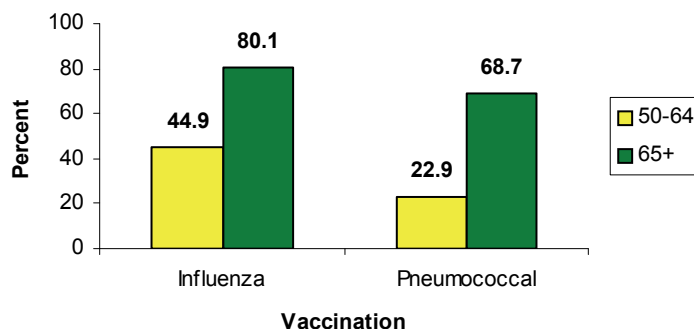
Child & School Health 2006

Child & School Health	Clinics/ Facilities	Enrollment
WIC Women ¹⁰	4	1,368
WIC Infants ¹⁰	4	1,196
WIC Children ¹⁰	4	2,331
Child Care ¹¹	11	636
Head Start ¹²	11	426
Public Schools ¹³	58	30,671
Private/Charter Schools ¹³	7	1,452

Immunized for Child Care 2006⁵

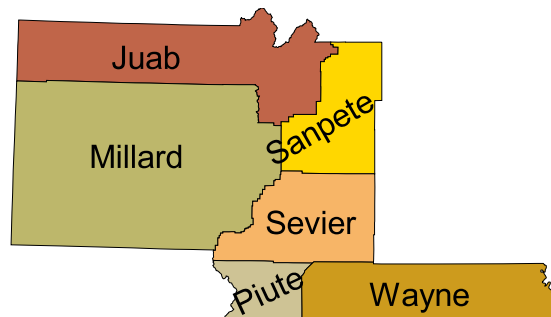
Bear River	Adequately Immunized	Total Exemptions
Child Care Facilities and Preschools	98.0%	0.8%
Head Start Centers	97.3%	0.5%

Influenza* & Pneumococcal Vaccinations 2006¹⁴



* Influenza=within past 12 months, pneumococcal=ever had

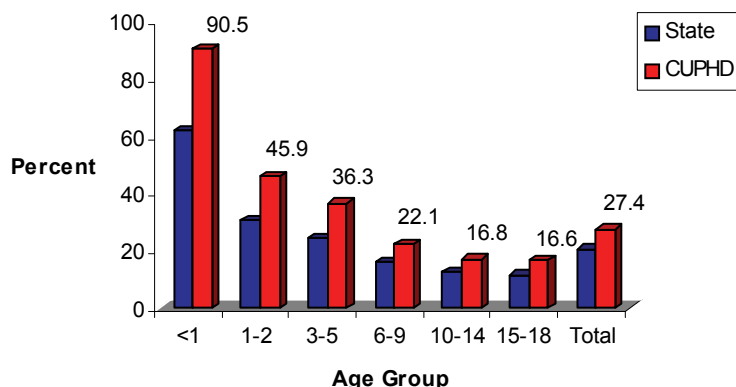
Population 2006 ¹	Number	% of Total
Total Population	71,315	
17 and Under	21,567	30.2%
18 to 34	19,742	27.7%
35 to 49	11,693	16.4%
50 to 64	10,267	14.4%
65 and Over	8,046	11.3%
Poverty 2004-2005 ²	Number	% of Total
Total 0-100% Poverty	12,000	16.92%
17 and Under	4,400	20.30%
18 to 34	3,700	19.61%
35 to 49	1,900	16.35%
50 to 64	800	8.39%
65 and Over	1,000	12.01%
Total 101-200% Poverty²	25,100	35.52%
17 and Under	9,200	42.01%
18 to 34	7,100	37.29%
35 to 49	3,700	31.57%
50 to 64	2,200	22.37%
65 and Over	3,000	37.25%



Population 2006 ¹	Number	% of Total
Total 0-18	22,814	
<1	1,152	5.0%
1-2	2,298	10.1%
3-5	3,462	15.2%
6-9	4,743	20.8%
10-14	6,079	26.6%
15-18	5,080	22.3%
Population 2006 ¹	Number	% of Total
Juab	8,959	12.6%
Millard	13,398	18.8%
Piute	1,335	1.9%
Sanpete	25,635	35.9%
Sevier	19,466	27.3%
Wayne	2,522	3.5%

Medicaid Eligible Population by Age 2006⁴

CUPHD Medicaid Eligible 0-18 = 6,261



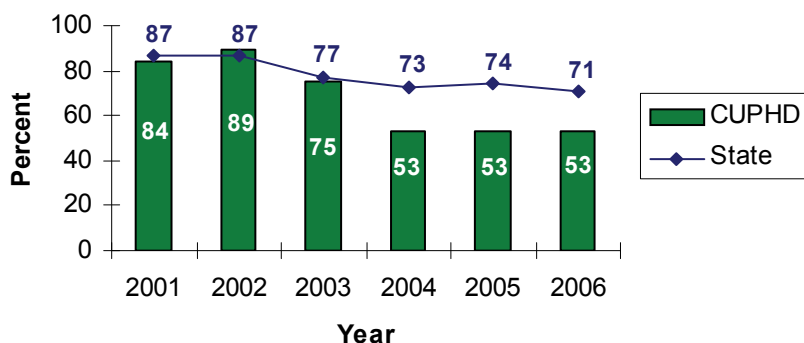
Insurance 2005	Number	% of Total
Total Uninsured³	10,400	14.6%
18 and Under ²	2,500	10.8%
19 to 34 ²	4,700	25.9%
35 to 49 ²	2,600	21.7%
50 to 64 ²	1,600	16.5%
Selected Insurance Type ³	Number	% of Total
Medicare	8,500	13.9%
CHIP*	2,600	12.5%
Insured, Service Not Covered	5,000	8.3%

*Children's Health Insurance Program, Ages 0 to 18

Up-to-Date at Age Two by Antigen 2006⁵

County	4 DTaP	3 Polio	1 MMR	3 Hib	3 Hep B	1 Varicella	4:3:1:3:3	4:3:1:3:3:1
Juab	38%	81%	75%	94%	75%	81%	31%	31%
Millard	57%	71%	71%	86%	71%	57%	57%	57%
Piute	67%	83%	67%	83%	83%	100%	67%	67%
Sanpete	54%	67%	83%	67%	58%	67%	38%	38%
Sevier	72%	90%	84%	90%	86%	74%	63%	53%
Wayne	50%	50%	50%	100%	50%	50%	50%	50%
CUPHD	62%	81%	80%	85%	77%	73%	53%	47%

Central LHD & State CASA UTD at Age 2 on 4:3:1:3:3 2001-2006⁵



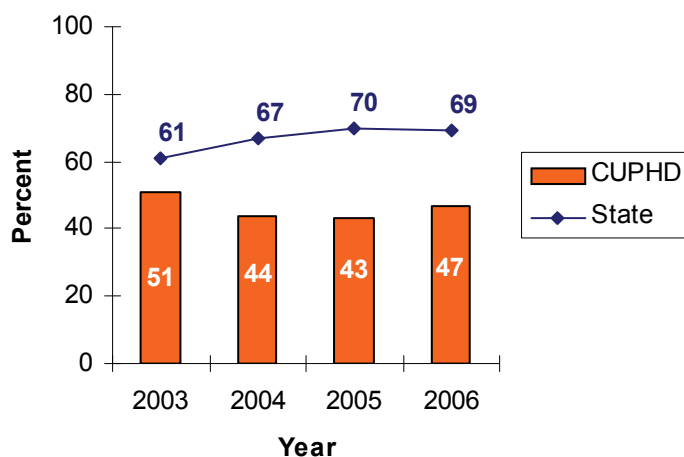
Private VFC Providers Up-to-Date at Age Two (4:3:1:3:3)⁵

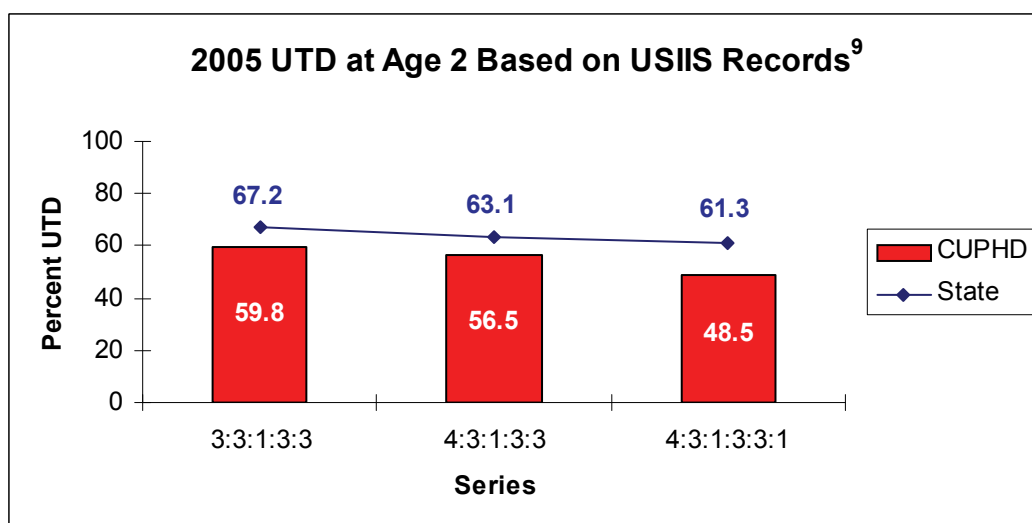
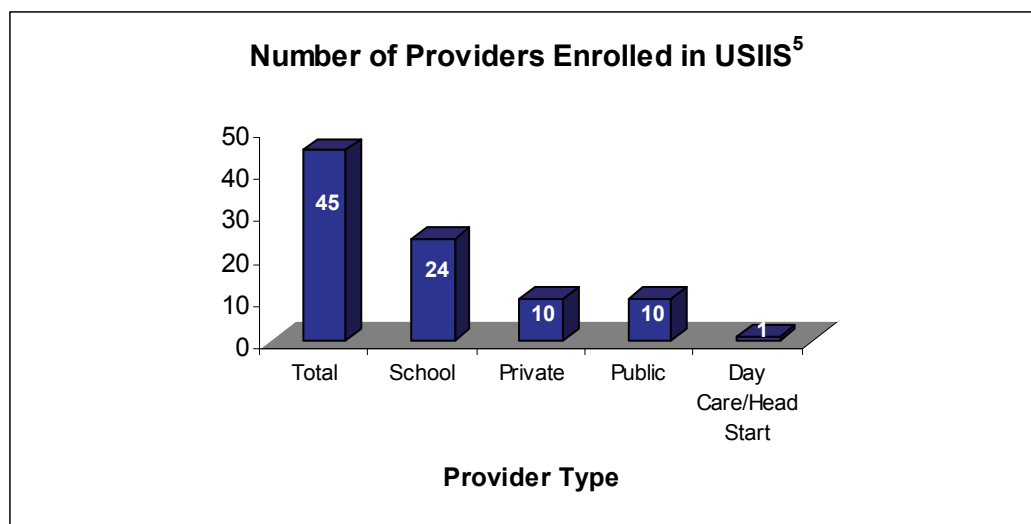
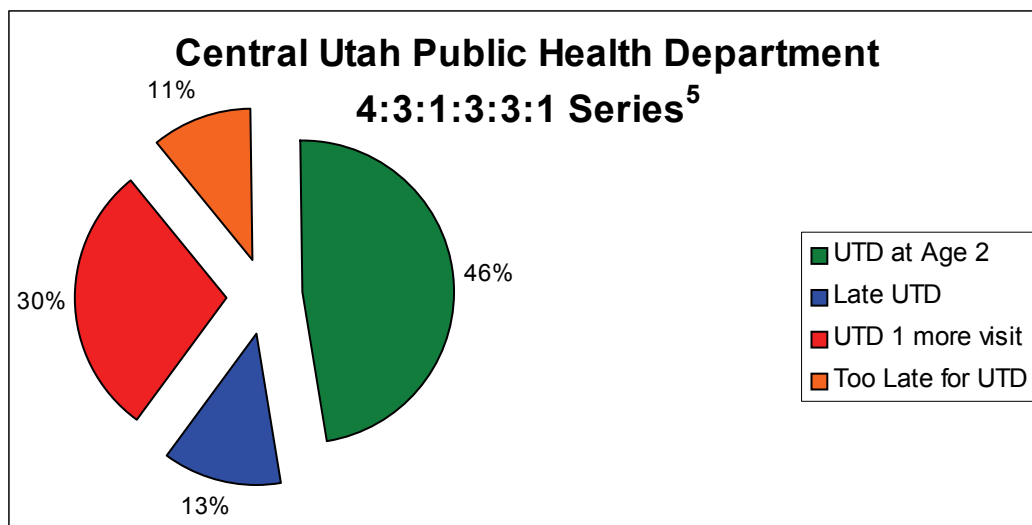
2002	47%
2003	49%
2004	46%
2005	57%
2006	53%

Health Care 2006⁵

Providers/Facilities	Number
Private VFC Providers	15
Public School Nurses	7
Private/Charter School	4
Public Medical Clinics ⁶	2
Hospitals ⁶	6
Long Term Care and Assisted Living Centers ⁷	15
Local Health District Offices ⁶	8

Central LHD CASA UTD at Age 2 4:3:1:3:3:1 2003-2006⁵

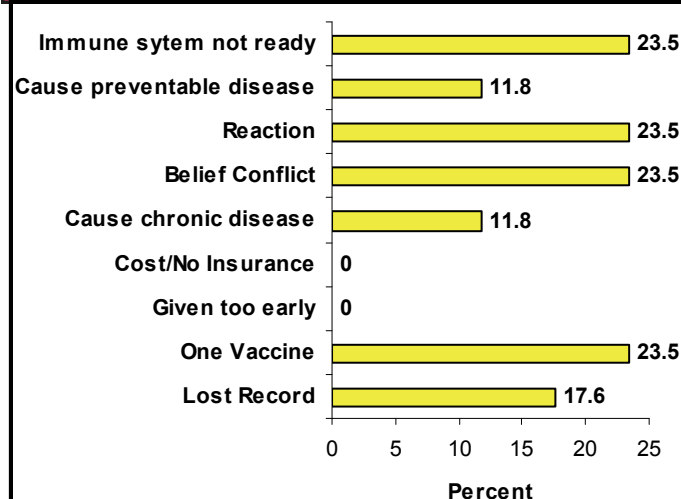




Adequately Immunized by School District 2006⁵

	Juab		Millard		N Sanpete		Piute		Sevier		S Sanpete		Tintic		Wayne	
Central	Adeq Imm	Total Exmp	Adeq Imm	Total Exmp	Adeq Imm	Total Exmp	Adeq Imm	Total Exmp	Adeq Imm	Total Exmp	Adeq Imm	Total Exmp	Adeq Imm	Total Exmp	Adeq Imm	Total Exmp
School Entry Kindergarten	70.8%	9.1%	82.0%	7.8%	52.8%	4.1%	77.8%	0%	78.5%	4.4%	82.4%	2.2%	92.3%	0%	94.9%	5.0%
Second-Dose Measles (K-12)	94.0%	5.9%	97.0%	3.0%	94.5%	4.3%	100%	0%	95.7%	4.3%	96.4%	2.7%	94.7%	5.3%	96.2%	3.8%
7th Grade Entry	95.2%	4.8%	93.8%	4.6%	81.8%	4.6%	100%	0%	95.1%	4.9%	96.6%	1.7%	89.5%	5.3%	96.1%	3.9%

School Exemption Survey 2006-2007⁵



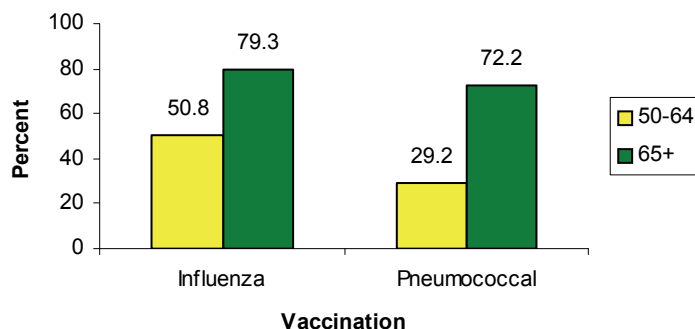
Child & School Health 2006

Group	Clinics/Facilities	Enrollment
WIC Women ¹⁰	10	561
WIC Infants ¹⁰	10	567
WIC Children ¹⁰	10	1,155
Child Care ¹¹	18	679
Head Start ¹²	12	192
Public Schools ¹³	53	15,669
Private/Charter Schools ¹³	9	574

Immunized for Child Care 2006⁵

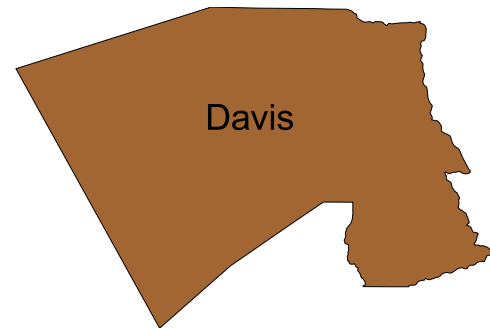
Central	Adequately Immunized	Total Exemptions
Child Care Facilities and Preschools	92.4%	2.1%
Head Start Centers	92.6%	5.4%

Influenza* & Pneumococcal Vaccinations 2006¹⁴



* Influenza=within past 12 months, pneumococcal=ever had

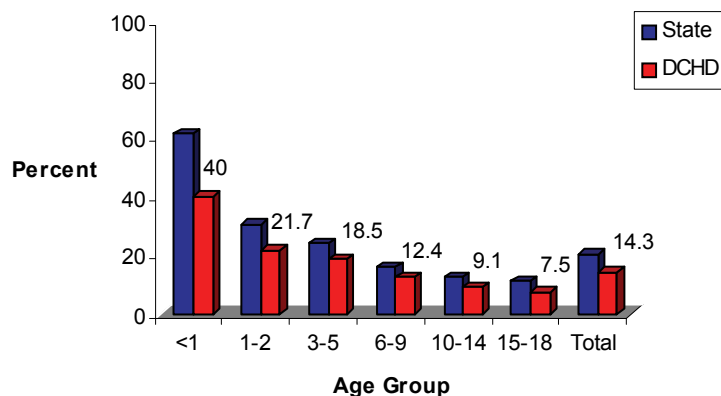
Population 2006 ¹	Number	% of Total
Total Population	282,217	
17 and Under	91,469	32.4%
18 to 34	79,107	28.0%
35 to 49	53,408	18.9%
50 to 64	36,931	13.1%
65 and Over	21,302	7.5%
Poverty 2004-2005 ²	Number	% of Total
Total 0-100% Poverty	23,200	8.52%
17 and Under	9,300	10.44%
18 to 34	4,600	6.05%
35 to 49	5,600	10.61%
50 to 64	2,400	6.90%
65 and Over	1,500	7.16%
Total 101-200% Poverty²	43,800	16.08%
17 and Under	18,500	20.65%
18 to 34	12,800	16.79%
35 to 49	6,600	12.59%
50 to 64	1,700	5.10%
65 and Over	3,700	18.17%



Population 2006 ¹	Number	% of Total
Total 0-18	96,140	
<1	5,744	6.0%
1-2	11,327	11.8%
3-5	15,842	16.5%
6-9	20,057	20.8%
10-14	23,880	24.8%
15-18	19,290	20.1%

Medicaid Eligible Population by Age 2006⁴

DCHD Medicaid Eligible 0-18 = 13,785



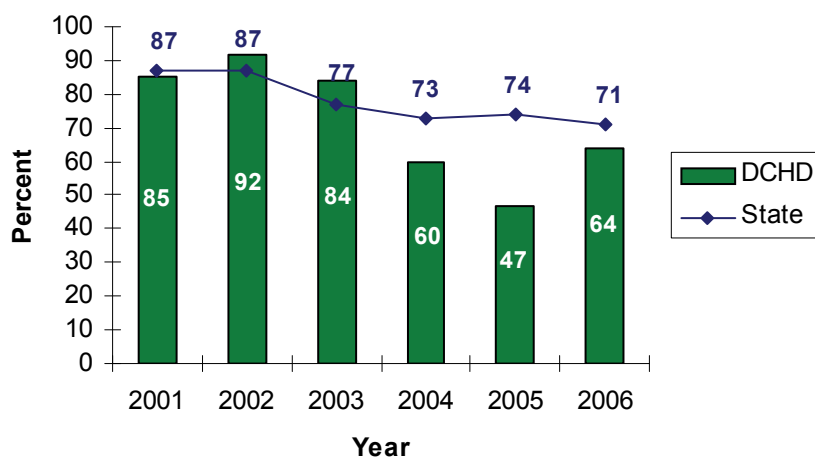
Insurance 2005	Number	% of Total
Total Uninsured³	23,200	8.4%
18 and Under ²	4,600	4.8%
19 to 34 ²	8,100	11.1%
35 to 49 ²	4,700	9.0%
50 to 64 ²	1,700	5.4%
Selected Insurance Type ³	Number	% of Total
Medicare	14,600	5.8%
CHIP*	Not available	Not available
Insured, Service Not Covered	17,700	7.0%

*Children's Health Insurance Program, Ages 0 to 18

Up-to-Date at Age Two by Antigen 2006⁵

County	4 DTap	3 Polio	1 MMR	3 Hib	3 Hep B	1 Varicella	4:3:1:3:3	4:3:1:3:3:1
Davis	71%	83%	81%	81%	80%	79%	64%	61%

Davis LHD & State CASA UTD at Age 2 on 4:3:1:3:3 2001-2006⁵



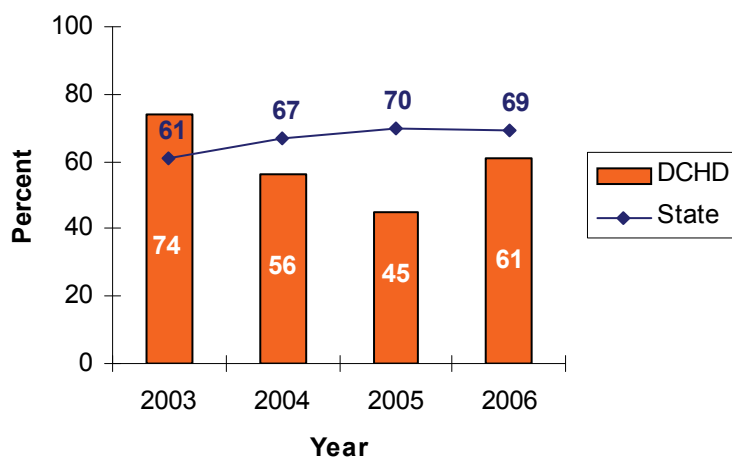
Private VFC Providers Up-to-Date at Age Two (4:3:1:3:3)⁵

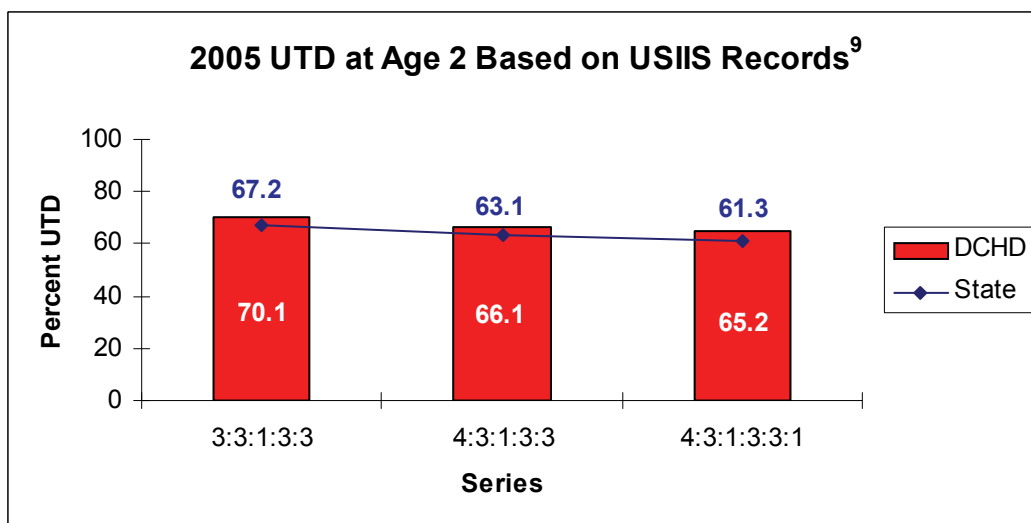
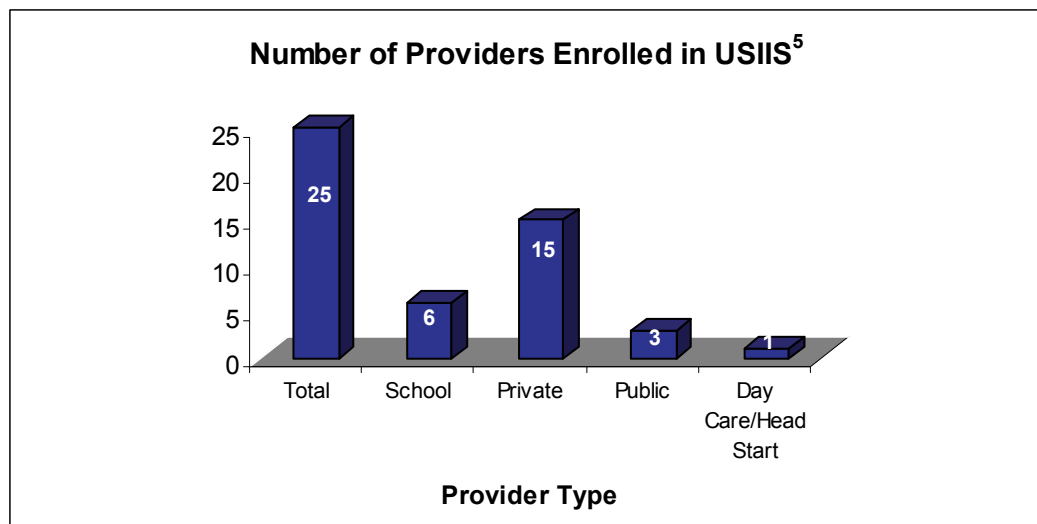
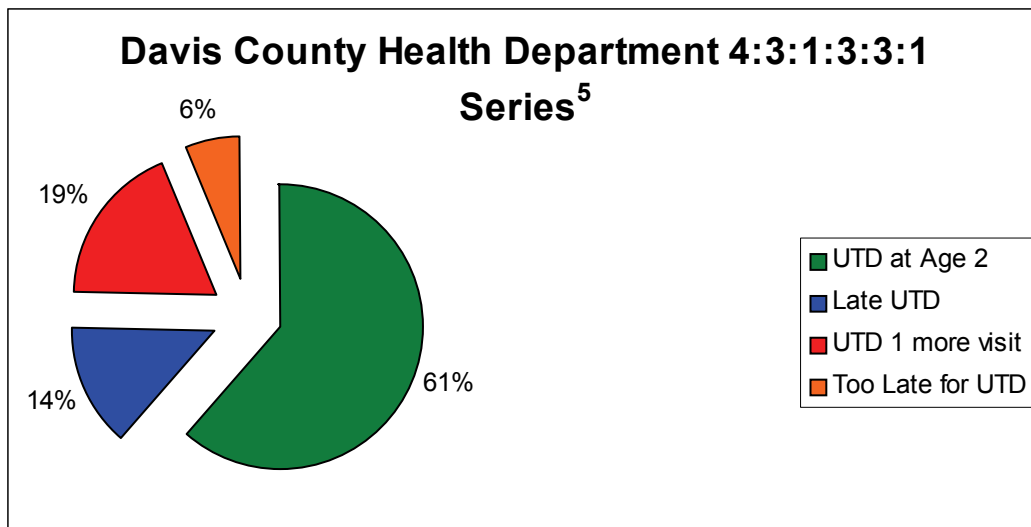
2002	73%
2003	77%
2004	60%
2005	67%
2006	44%

Health Care 2006⁵

Providers/Facilities	Number
Private VFC Providers	23
Public School Nurses	15
Private/Charter School	4
Public Medical Clinics ⁶	0
Hospitals ⁶	2
Long Term Care and Assisted Living Centers ⁷	26
Local Health District Offices ⁶	3

Davis County LHD CASA UTD at Age 2 4:3:1:3:3:1 2003-2006⁵

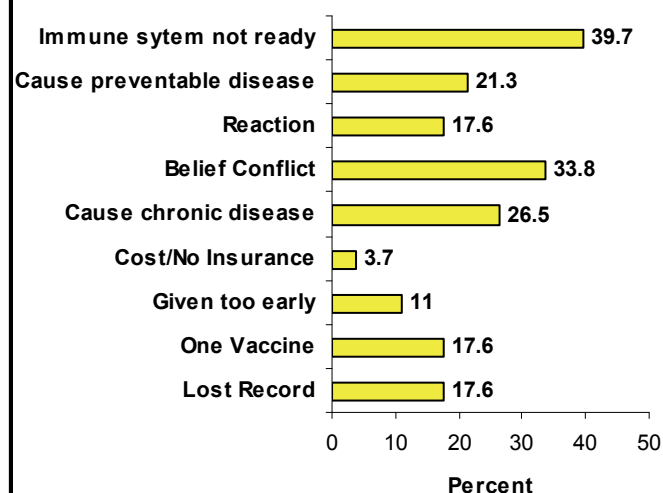




Adequately Immunized by School District 2006⁵

Davis	Davis School District	
	Adequately Immunized	Total Exemptions
School Entry Kindergarten	74.0%	2.5%
Second-Dose Measles (K-12)	96.4%	1.8%
7th Grade Entry	79.3%	2.5%

School Exemption Survey 2006-2007⁵



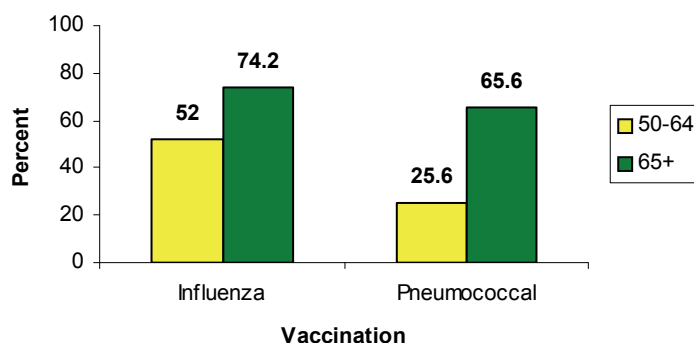
Child & School Health 2006

Group	Clinics/ Facilities	Enrollment
WIC Women ¹⁰	2	1,291
WIC Infants ¹⁰	2	1,374
WIC Children ¹⁰	2	2,568
Child Care ¹¹	23	1,589
Head Start ¹²	21	1,573
Public Schools ¹³	75	62,943
Private/Charter Schools ¹³	14	3,205

Immunized for Child Care 2006⁵

Davis	Adequately Immunized	Total Exemptions
Child Care Facilities and Preschools	89.6%	0.9%
Head Start Centers	94.6%	1.5%

Influenza* & Pneumococcal Vaccinations 2006¹⁴



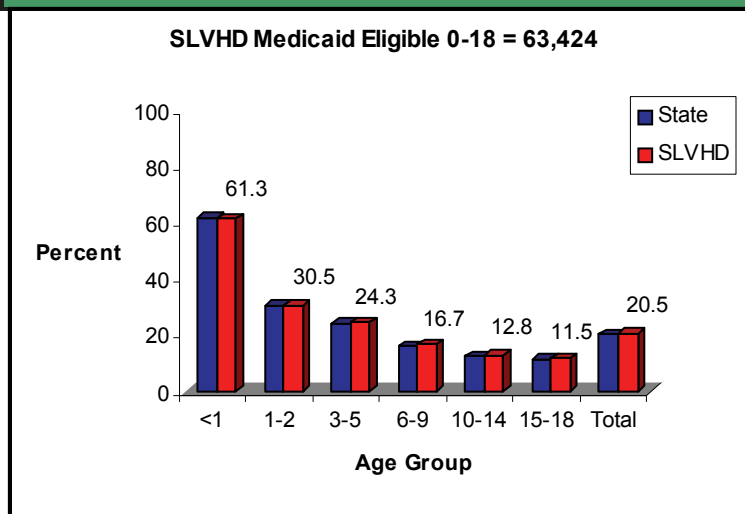
* Influenza=within past 12 months, pneumococcal=ever had

Population 2006 ¹	Number	% of Total
Total Population	986,073	
17 and Under	295,329	30.0%
18 to 34	269,810	27.4%
35 to 49	199,077	20.2%
50 to 64	141,225	14.3%
65 and Over	80,632	8.2%
Poverty 2004-2005 ²	Number	% of Total
Total 0-100% Poverty	83,100	8.63%
17 and Under	31,500	10.94%
18 to 34	25,200	9.35%
35 to 49	13,100	6.70%
50 to 64	5,200	3.98%
65 and Over	7,500	9.65%
Total 101-200% Poverty²	197,900	20.55%
17 and Under	71,900	24.95%
18 to 34	58,100	21.53%
35 to 49	32,400	16.60%
50 to 64	14,800	11.25%
65 and Over	21,800	27.86%



Population 2006 ¹	Number	% of Total
Total 0-18	309,415	
<1	18,804	6.1%
1-2	37,278	12.0%
3-5	54,663	17.7%
6-9	65,535	21.2%
10-14	74,700	24.1%
15-18	58,435	18.9%

Medicaid Eligible Population by Age 2006⁴



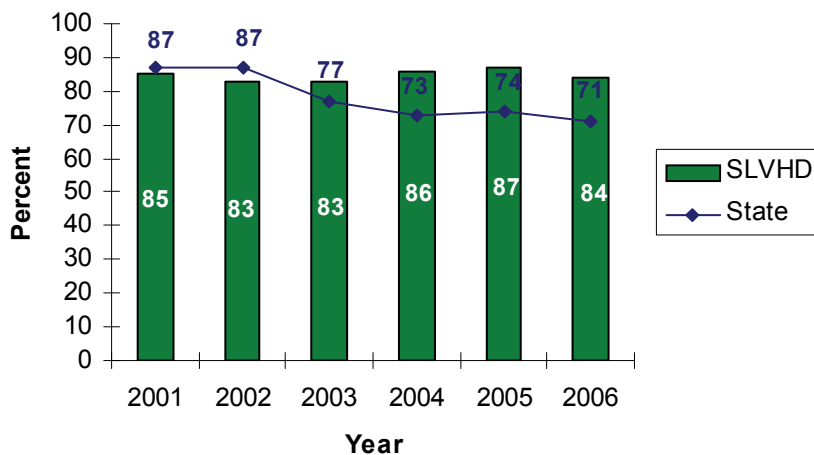
Insurance 2005	Number	% of Total
Total Uninsured³	110,500	11.4%
18 and Under ²	26,000	8.5%
19 to 34 ²	47,400	18.5%
35 to 49 ²	23,600	12.0%
50 to 64 ²	8,700	6.22%
Selected Insurance Type ³	Number	% of Total
Medicare	87,800	10.2%
CHIP*	13,700	4.9%
Insured, Service Not Covered	70,100	8.2%

*Children's Health Insurance Program, Ages 0 to 18

Up-to-Date at Age Two by Antigen 2006⁵

County	4 DTaP	3 Polio	1 MMR	3 Hib	3 Hep B	1 Varicella	4:3:1:3:3	4:3:1:3:3:1
Salt Lake	85%	97%	97%	94%	97%	95%	84%	83%

Salt Lake Valley LHD & State CASA UTD at Age 2 on 4:3:1:3:3 2001-2006⁵



Private VFC Providers Up-to-Date at Age Two (4:3:1:3:3)⁵

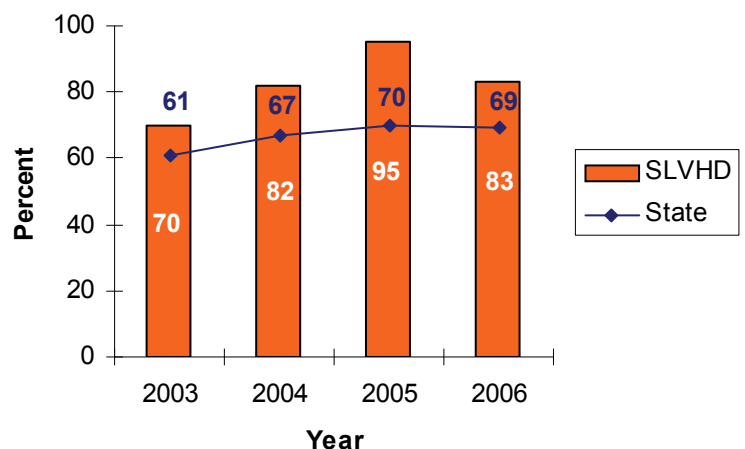
2002	70%
2003	65%
2004	62%
2005	68%
2006	60%

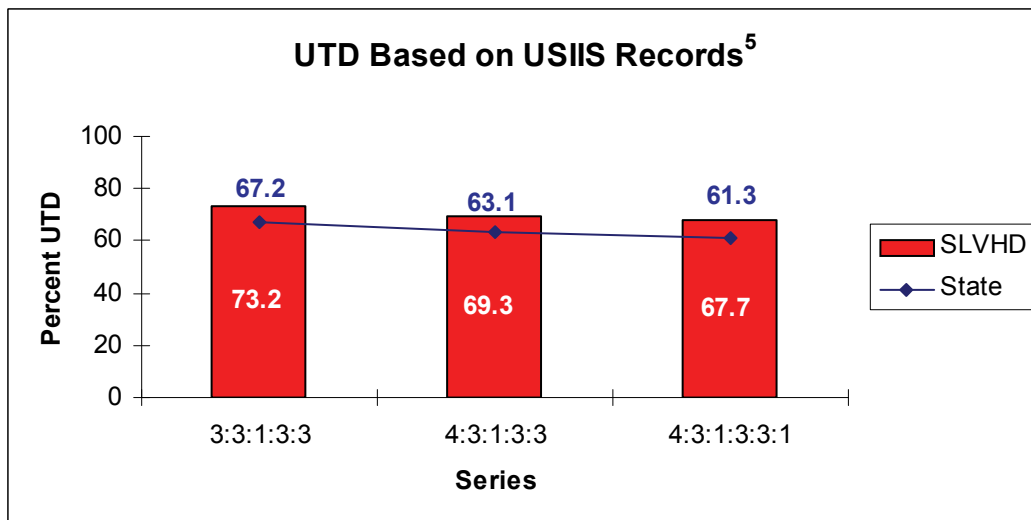
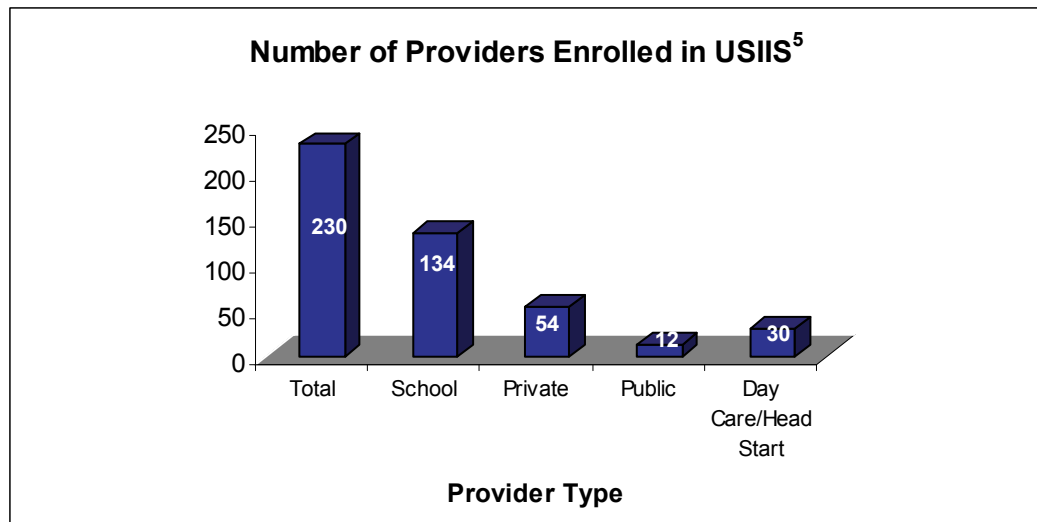
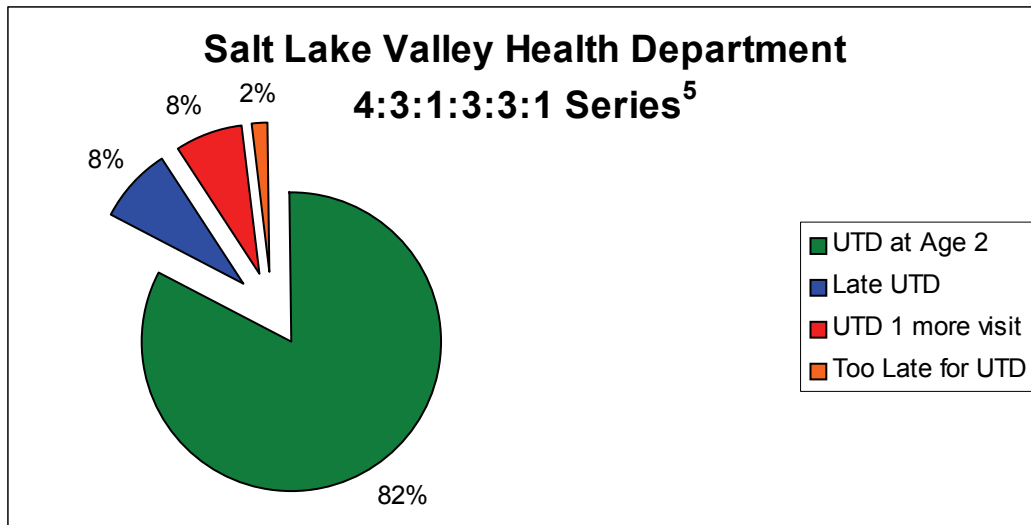
Health Care 2006⁵

Providers/Facilities	Number
Private VFC Providers	93
Public School Nurses	28
Private/Charter School	14
Public Medical Clinics ⁶	6
Hospitals ⁶	11
Long Term Care and Assisted Living Centers ⁷	86
Local Health District Offices ⁶	6

St Mark's Hospital & University of Utah Medical Center
NOT offering birth dose Hepatitis B vaccine.

Salt Lake Valley LHD CASA UTD at Age 2 4:3:1:3:3:1 2003-2006⁵

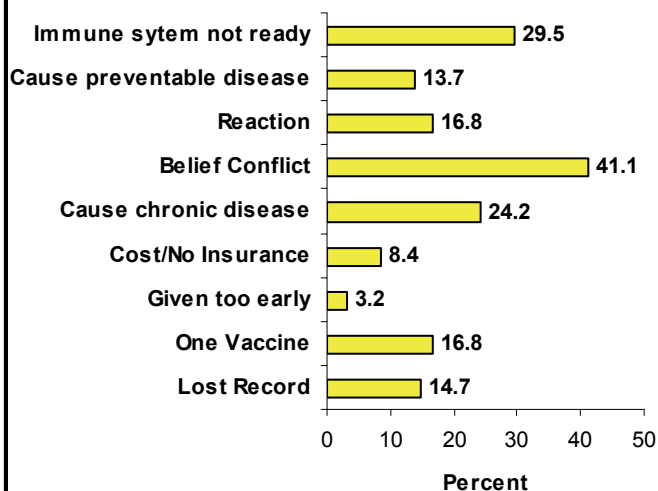




Adequately Immunized by School District 2006⁵

Salt Lake	Granite		Jordan		Murray		Salt Lake	
	Adequate Immune	Total Exempt	Adequate Immune	Total Exempt	Adequate Immune	Total Exempt	Adequate Immune	Total Exempt
School Entry Kindergarten	83.8%	1.7%	83.9%	2.7%	83.7%	1.0%	86.4%	2.1%
Second-Dose Measles (K-12)	98.1%	1.3%	97.5%	1.8%	97.6%	1.7%	97.7%	0.8%
7th Grade Entry	96.4%	2.1%	95.9%	2.1%	87.1%	3.1%	82.1%	0.5%

School Exemption Survey 2006-2007⁵



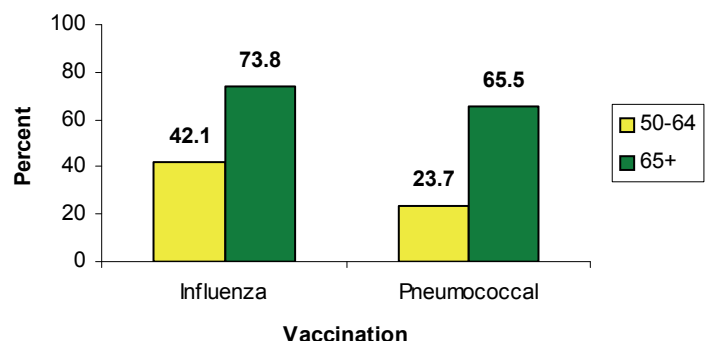
Child & School Health 2006

Group	Clinics/ Facilities	Enrollment
WIC Women ¹⁰	8	6,401
WIC Infants ¹⁰	8	6,707
WIC Children ¹⁰	8	12,139
Child Care ¹¹	198	17,210
Head Start ¹²	44	1,036
Public Schools ¹³	217	177,934
Private/Charter Schools ¹³	69	16,146

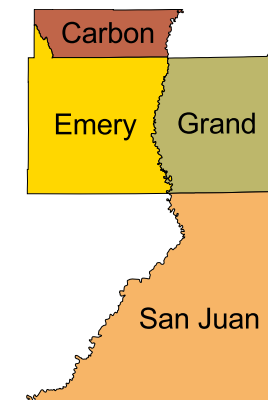
Immunized for Child Care 2006⁵

Salt Lake	Adequately Immunized	Total Exemptions
Child Care Facilities and Preschools	94.0%	1.1%
Head Start Centers	95.0%	0.6%

Influenza* & Pneumococcal Vaccinations 2006¹⁴



* Influenza=within past 12 months, pneumococcal=ever had



Population 2006 ¹	Number	% of Total
Total Population	52,486	
17 and Under	14,817	28.2%
18 to 34	12,821	24.4%
35 to 49	9,384	17.9%
50 to 64	9,092	17.3%
65 and Over	6,372	12.1%

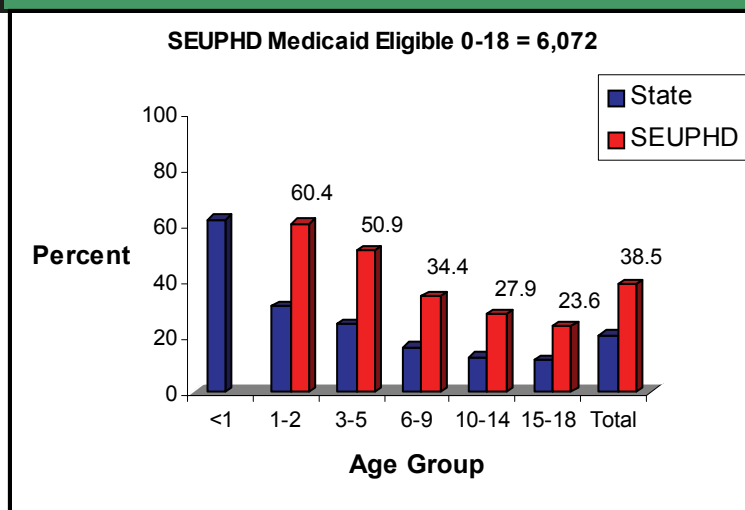
Poverty 2004-2005 ²	Number	% of Total
Total 0-100% Poverty	8,900	16.90%
17 and Under	3,500	22.96%
18 to 34	2,700	21.12%
35 to 49	1,300	13.24%
50 to 64	500	6.06%
65 and Over	900	13.97%

Total 101-200% Poverty ²	13,900	26.24%
17 and Under	4,600	29.76%
18 to 34	3,600	28.92%
35 to 49	2,000	19.92%
50 to 64	1,700	19.75%
65 and Over	2,000	32.46%

Population 2006 ¹	Number	% of Total
Total 0-18	15,770	
<1	774	4.9%
1-2	1,543	9.8%
3-5	2,263	14.4%
6-9	3,169	20.1%
10-14	4,213	26.7%
15-18	3,808	24.1%

Population 2006 ¹	Number	% of Total
Carbon	18,896	36.0%
Emery	10,423	19.9%
Grand	8,724	16.6%
San Juan	14,443	27.5%

Medicaid Eligible Population by Age 2006⁴



**Data for <1 Medicaid Eligible for Southeastern could not be calculated.

Insurance 2005	Number	% of Total
Total Uninsured ³	6,600	12.5%
18 and Under ²	1,900	11.9%
19 to 34 ²	2,600	22.2%
35 to 49 ²	1,200	12.2%
50 to 64 ²	1,100	13.0%

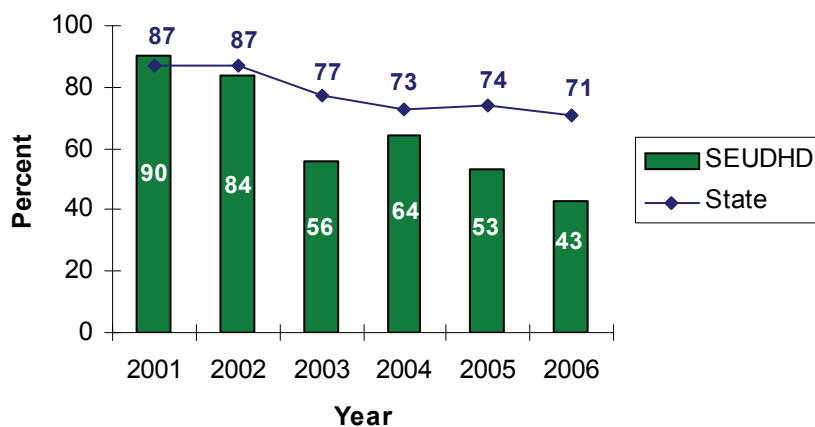
Selected Insurance Type ³	Number	% of Total
Medicare	7,900	17.2%
CHIP*	500	3.0%
Insured, Service Not Covered	5,000	10.9%

*Children's Health Insurance Program, Ages 0 to 18

Up-to-Date at Age Two by Antigen 2006⁵

County	4 DTaP	3 Polio	1 MMR	3 Hib	3 Hep B	1 Varicella	4:3:1:3:3	4:3:1:3:3:1
Carbon	49%	88%	82%	83%	85%	81%	44%	43%
Emery	39%	68%	68%	68%	54%	71%	18%	18%
Grand	75%	100%	100%	100%	83%	100%	58%	58%
San Juan	50%	100%	96%	100%	100%	83%	50%	50%
SEUPHD	54%	88%	83%	87%	81%	77%	43%	40%

Southeastern LHD & State CASA UTD at Age 2 on 4:3:1:3:3 2001-2006⁵



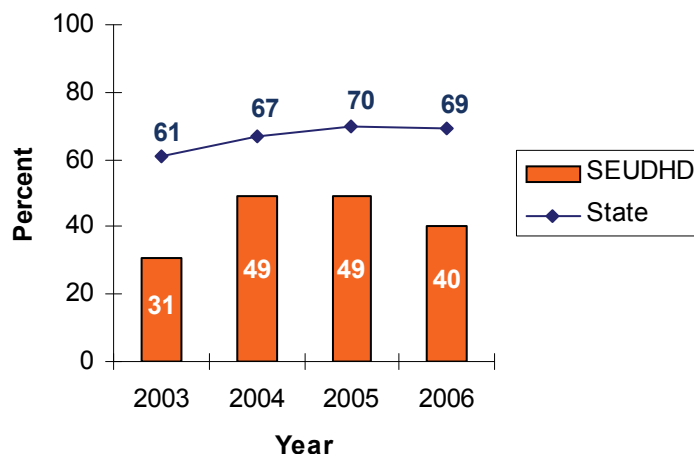
Private VFC Providers Up-to-Date at Age Two (4:3:1:3:3)⁵

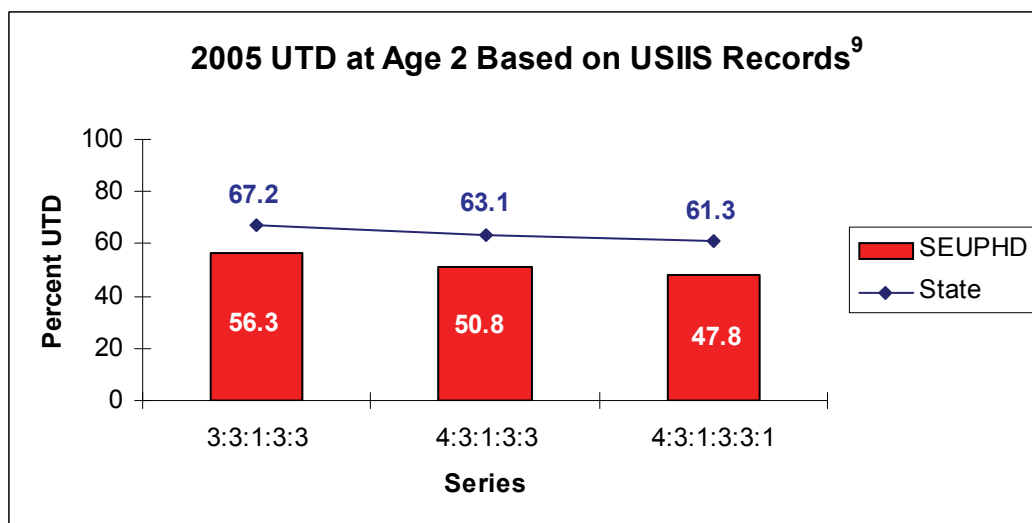
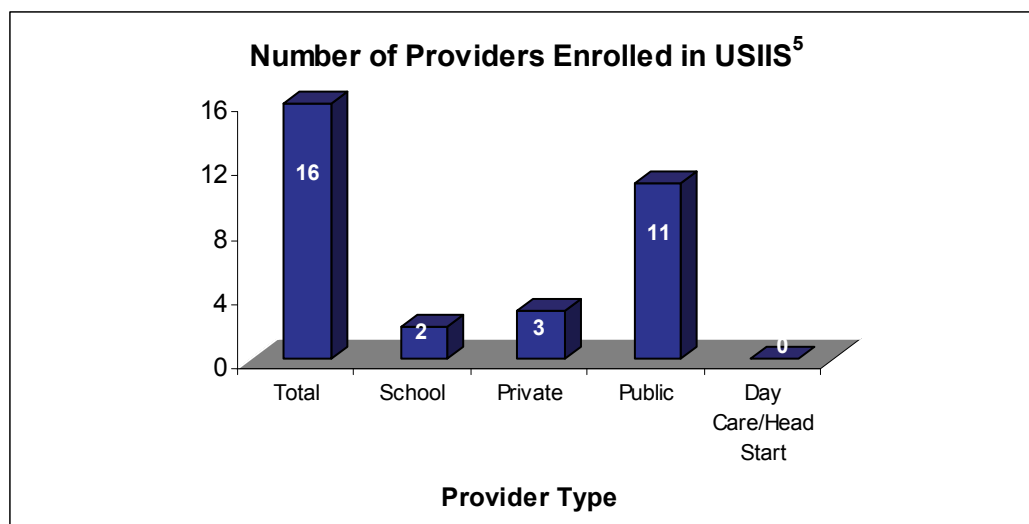
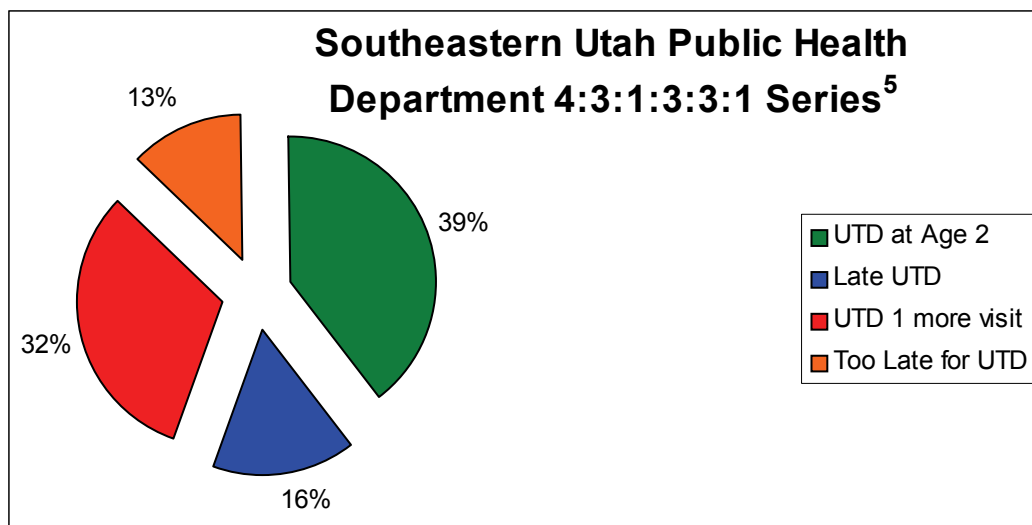
2002	NA
2003	NA
2004	77%
2005	NA
2006	NA

Health Care 2006⁵

Providers/Facilities	Number
Private VFC Providers	3
Public School Nurses	5
Private/Charter School	3
Public Medical Clinics ⁶	9
Hospitals ⁶	3
Long Term Care and Assisted Living Centers ⁷	6
Local Health District Offices ⁶	5

Southeastern LHD CASA UTD at Age 2 4:3:1:3:3:1 2003-2006⁵

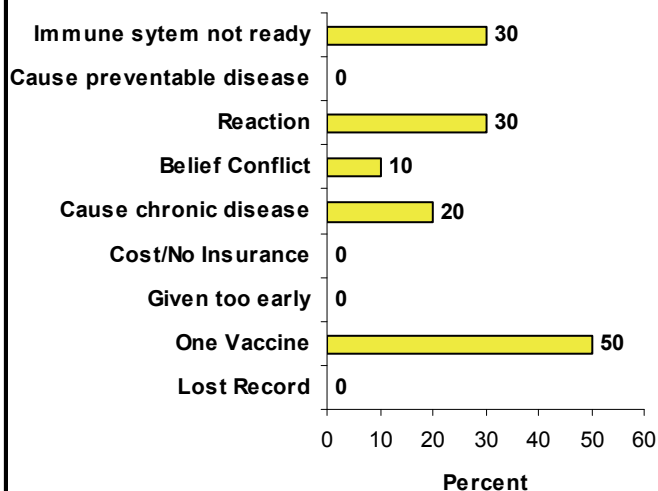




Adequately Immunized by School District 2006⁵

Southeastern	Carbon		Emery		Grand		San Juan	
	Adequate Immune	Total Exempt	Adequate Immune	Total Exempt	Adequate Immune	Total Exempt	Adequate Immune	Total Exempt
School Entry Kindergarten	67.2%	1.5%	80.3%	2.2%	92.3%	3.3%	92.0%	1.7%
Second-Dose Measles (K-12)	98.2%	0.5%	97.5%	2.5%	97.1%	2.8%	98.5%	1.5%
7th Grade Entry	91.6%	1.5%	93.1%	6.9%	97.5%	2.5%	96.9%	2.2%

School Exemption Survey 2006-2007⁵



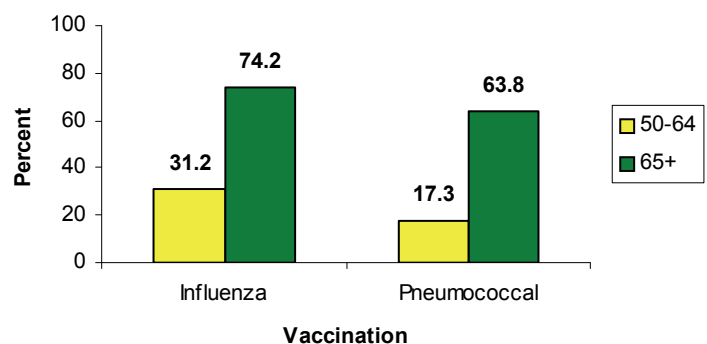
Child & School Health 2006

Group	Clinics/ Facilities	Enrollment
WIC Women ¹⁰	7	377
WIC Infants ¹⁰	7	407
WIC Children ¹⁰	7	699
Child Care ¹¹	31	678
Head Start ¹²	15	343
Public Schools ¹³	34	10,194
Private/Charter Schools ¹³	6	891

Immunized for Child Care 2006⁵

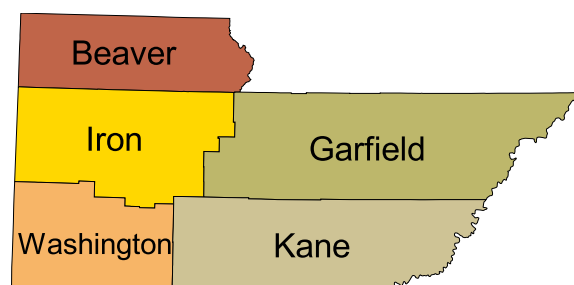
Southeastern	Adequately Immunized	Total Exemptions
Child Care Facilities and Preschools	89.3%	1.3%
Head Start Centers	90.0%	1.5%

Influenza* & Pneumococcal Vaccinations 2006¹⁴



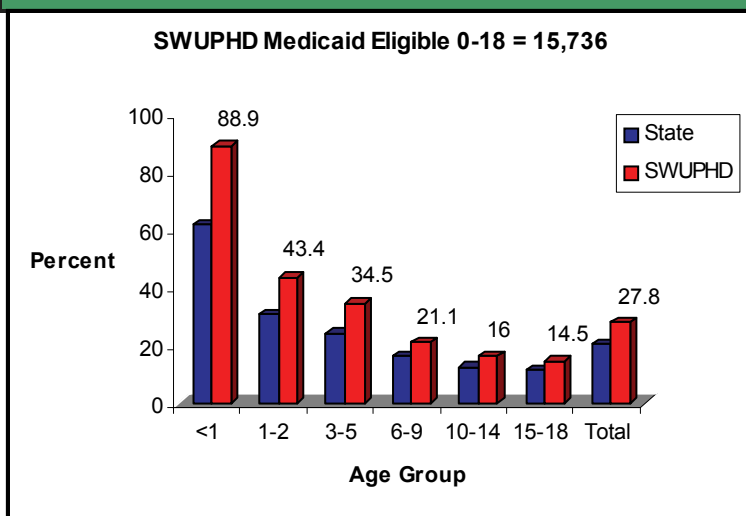
* Influenza=within past 12 months, pneumococcal=ever had

Population 2006 ¹	Number	% of Total
Total Population	190,815	
17 and Under	53,813	28.2%
18 to 34	51,982	27.2%
35 to 49	31,629	16.6%
50 to 64	25,937	13.6%
65 and Over	27,454	14.4%
Poverty 2004-2005 ²	Number	% of Total
Total 0-100% Poverty	23,000	12.93%
17 and Under	7,800	15.33%
18 to 34	8,000	16.65%
35 to 49	4,100	13.97%
50 to 64	1,000	4.18%
65 and Over	1,400	5.53%
Total 101-200%	54,300	30.55%
17 and Under	18,900	37.14%
18 to 34	18,000	37.41%
35 to 49	7,100	24.35%
50 to 64	2,900	12.13%
65 and Over	6,900	26.76%



Population 2006 ¹	Number	% of Total
Total 0-18	56,565	
<1	3,609	6.4%
1-2	6,889	12.2%
3-5	9,476	16.7%
6-9	11,719	20.7%
10-14	13,444	23.8%
15-18	11,428	20.2%
Population 2006 ¹	Number	% of Total
Beaver	6,319	3.3%
Garfield	4,642	2.4%
Iron	41,391	21.7%
Kane	6,107	3.2%
Washington	132,356	69.4%

Medicaid Eligible Population by Age 2006⁴



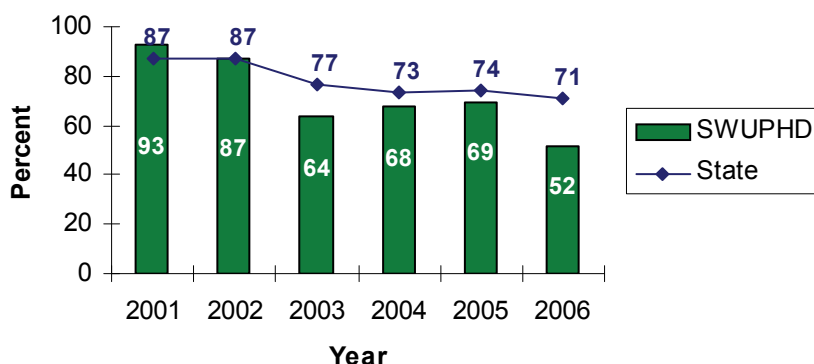
Insurance 2005	Number	% of Total
Total Uninsured³	26,800	14.7%
18 and Under ²	5,100	9.4%
19 to 34 ²	12,600	27.0%
35 to 49 ²	5,700	19.1%
50 to 64 ²	2,800	11.7%
Selected Insurance Type ³	Number	% of Total
Medicare	29,500	19.0%
CHIP*	7,600	15.5%
Insured, Service Not Covered	12,000	7.7%

*Children's Health Insurance Program, Ages 0 to 18

Up-to-Date at Age Two by Antigen 2006⁵

County	4 DTap	3 Polio	1 MMR	3 Hib	3 Hep B	1 Varicella	4:3:1:3:3	4:3:1:3:3:1
Beaver	33%	60%	67%	60%	60%	53%	33%	27%
Garfield	42%	84%	68%	79%	84%	53%	42%	26%
Iron	81%	97%	94%	94%	94%	83%	78%	75%
Kane	65%	95%	95%	95%	95%	80%	65%	65%
Washington	54%	82%	78%	82%	77%	72%	48%	46%
SWUPHD	56%	83%	79%	82%	81%	72%	52%	49%

Southwest LHD & State CASA UTD at Age 2 on 4:3:1:3:3 2001-2006⁵



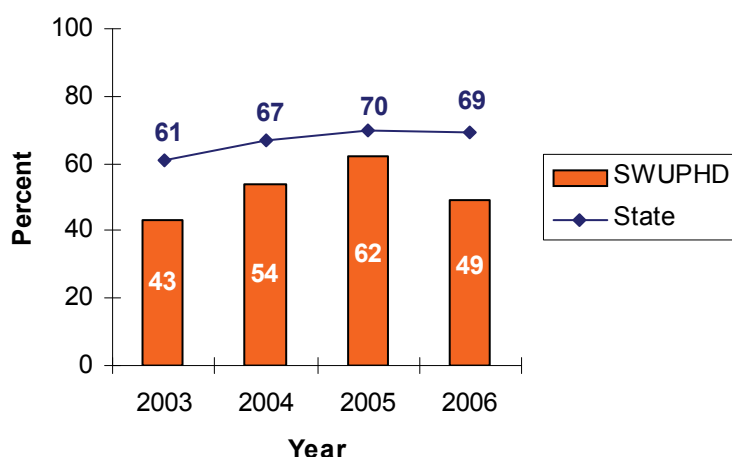
Private VFC Providers Up-to-Date at Age Two (4:3:1:3:3)⁵

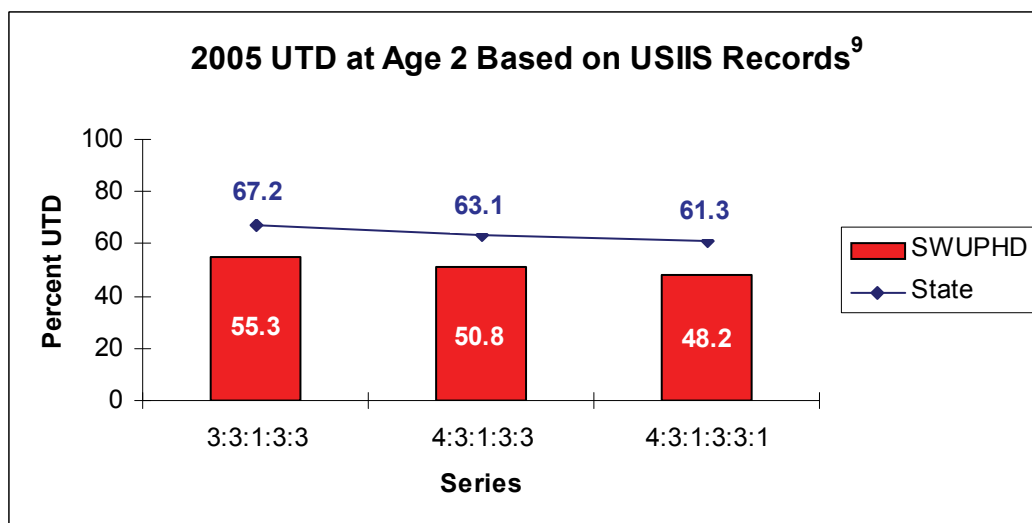
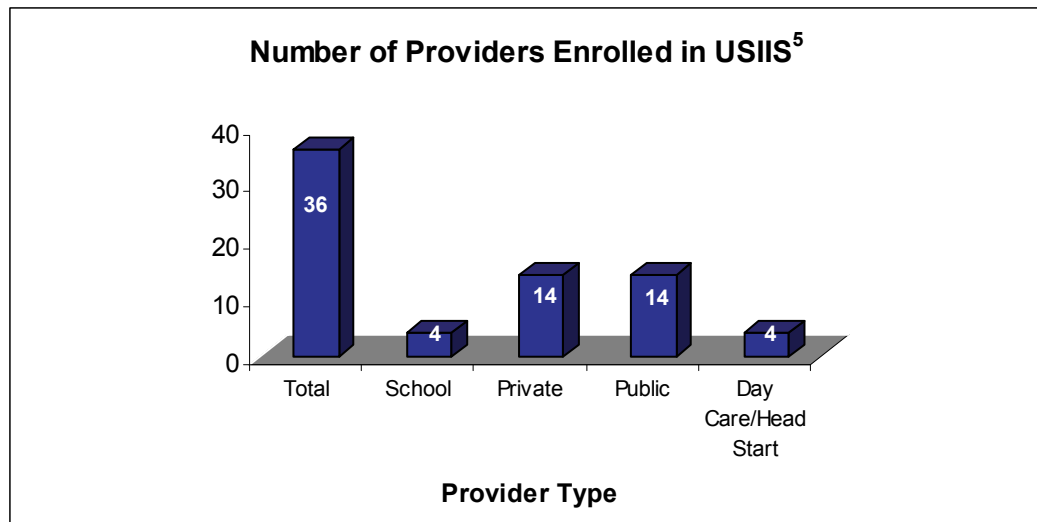
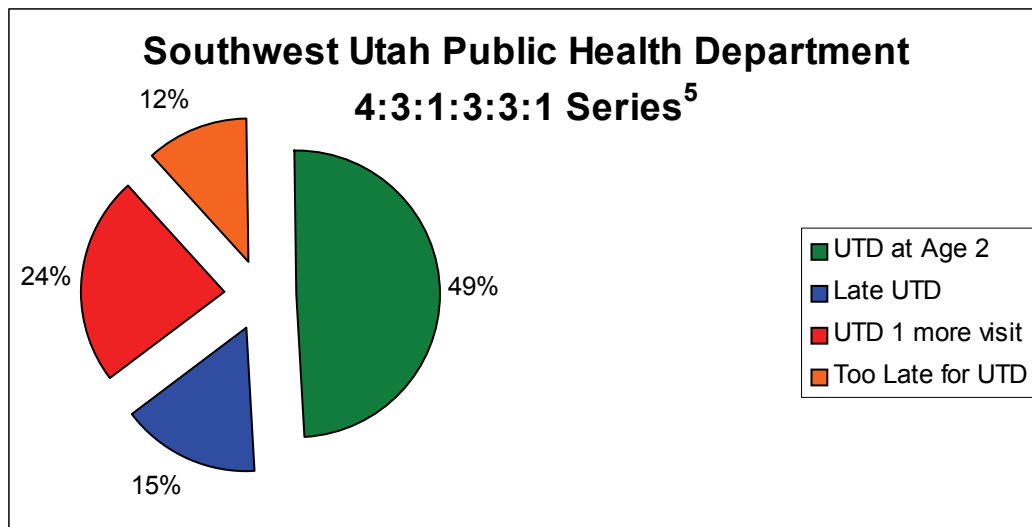
2002	20%
2003	61%
2004	31%
2005	57%
2006	34%

Health Care 2006⁵

Providers/Facilities	Number
Private VFC Providers	21
Public School Nurses	11
Private/Charter School	8
Public Medical Clinics ⁶	9
Hospitals ⁶	6
Long Term Care and Assisted Living Centers ⁷	20
Local Health District Offices ⁶	6

Southwest LHD CASA UTD at Age 2 4:3:1:3:3:1 2003-2006⁵

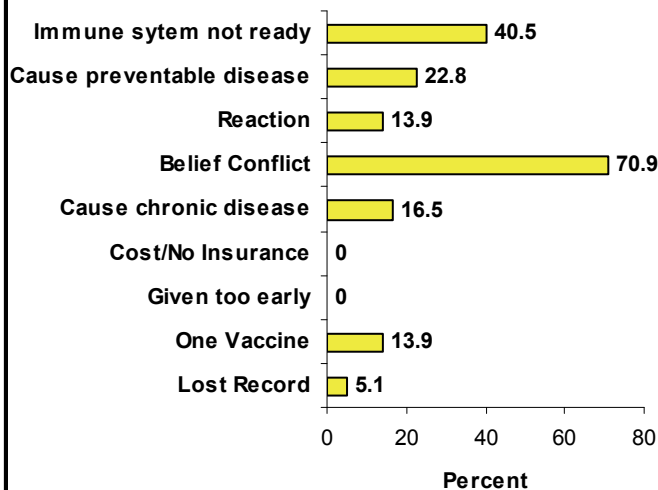




Adequately Immunized by School District 2006⁵

	Beaver		Garfield		Iron		Kane		Washington	
Southwest	Adequate Immune	Total Exempt	Adequate Immune	Total Exempt	Adequate Immune	Total Exempt	Adequate Immune	Total Exempt	Adequate Immune	Total Exempt
School Entry Kindergarten	92.0%	2.4%	86.8%	2.9%	80.7%	5.9%	75.0%	15.3%	78.1%	6.8%
Second-Dose Measles (K-12)	98.4%	1.3%	96.4%	3.6%	96.5%	3.4%	94.2%	5.5%	96.6%	3.1%
7th Grade Entry	92.0%	2.7%	98.2%	1.8%	94.9%	4.6%	91.4%	7.4%	96.0%	3.6%

School Exemption Survey 2006-2007⁵



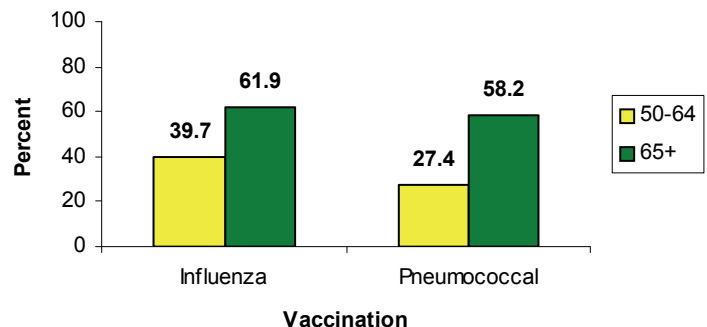
Child & School Health 2006

Group	Clinics/ Facilities	Enrollment
WIC Women ¹⁰	7	1,519
WIC Infants ¹⁰	7	1,526
WIC Children ¹⁰	7	2,496
Child Care ¹¹	15	1,288
Head Start ¹²	16	464
Public Schools ¹³	75	36,575
Private/Charter Schools ¹³	19	1,894

Immunized for Child Care 2006⁵

Southwest	Adequately Immunized	Total Exemptions
Child Care Facilities and Preschools	85.5%	2.4%
Head Start Centers	94.2%	4.7%

Influenza* & Pneumococcal Vaccinations 2006¹⁴



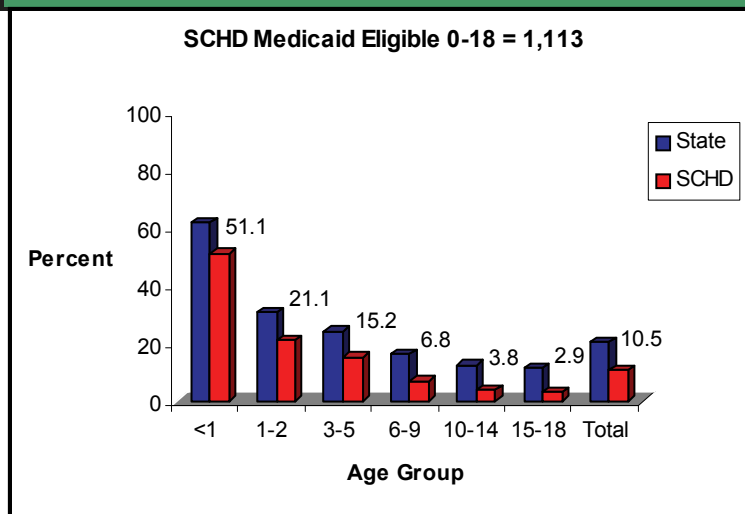
* Influenza=within past 12 months, pneumococcal=ever had

Population 2006 ¹	Number	% of Total
Total Population	37,624	
17 and Under	10,082	26.8%
18 to 34	9,581	25.5%
35 to 49	8,771	23.3%
50 to 64	6,798	18.1%
65 and Over	2,392	6.4%
Poverty 2004-2005 ²	Number	% of Total
Total 0-100% Poverty	2,400	6.61%
17 and Under	900	8.75%
18 to 34	800	8.54%
35 to 49	400	4.75%
50 to 64	**	**
65 and Over	**	**
Total 101-200% Poverty²	4,400	12.13%
17 and Under	1,500	14.90%
18 to 34	1,500	16.57%
35 to 49	1,000	11.29%
50 to 64	**	**
65 and Over	200	10.98%



Population 2006 ¹	Number	% of Total
Total 0-18	10,636	
<1	575	5.4%
1-2	1,151	10.8%
3-5	1,719	16.2%
6-9	2,068	19.4%
10-14	2,745	25.8%
15-18	2,378	22.4%

Medicaid Eligible Population by Age 2006⁴



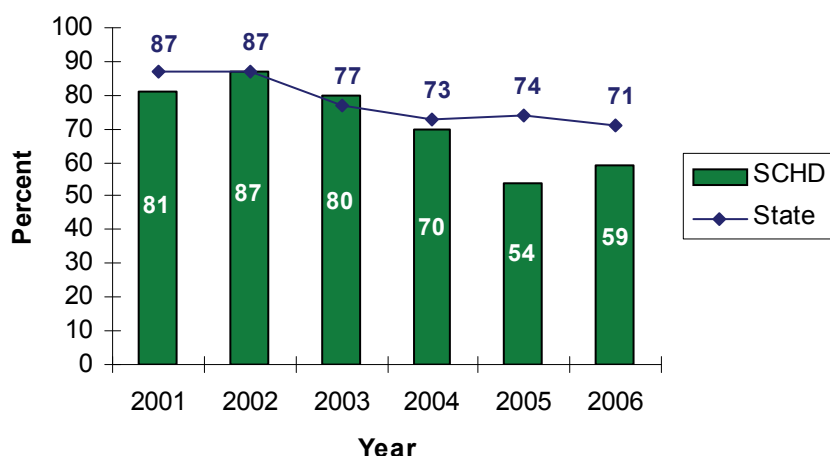
Insurance 2005	Number	% of Total
Total Uninsured³	4,600	12.7%
18 and Under ²	1,200	11.3%
19 to 34 ²	2,100	24.6%
35 to 49 ²	800	9.1%
50 to 64 ²	400	5.5%
Selected Insurance Type ³	Number	% of Total
Medicare	2,100	6.7%
CHIP*	100	0.9%
Insured, Service Not Covered	1,400	4.4%

*Children's Health Insurance Program, Ages 0 to 18

Up-to-Date at Age Two by Antigen 2006⁵

County	4 DTaP	3 Polio	1 MMR	3 Hib	3 Hep B	1 Varicella	4:3:1:3:3	4:3:1:3:3:1
Summit	66%	72%	72%	72%	66%	72%	59%	59%

Summit County LHD & State CASA UTD at Age 2 on 4:3:1:3:3 2001-2006⁵



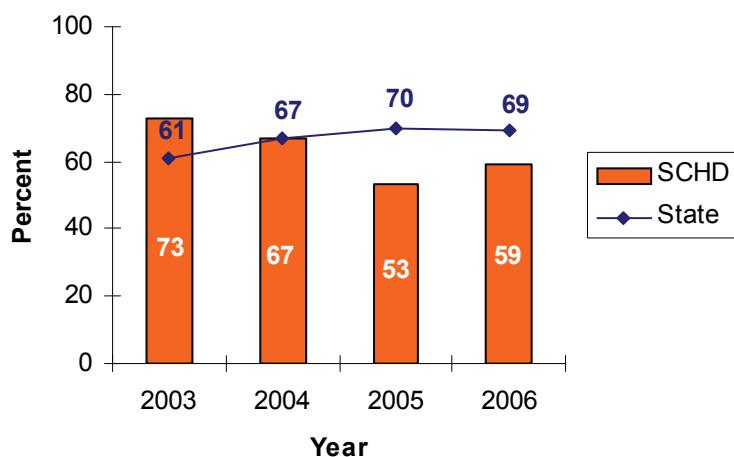
Private VFC Providers Up-to-Date at Age Two (4:3:1:3:3)⁵

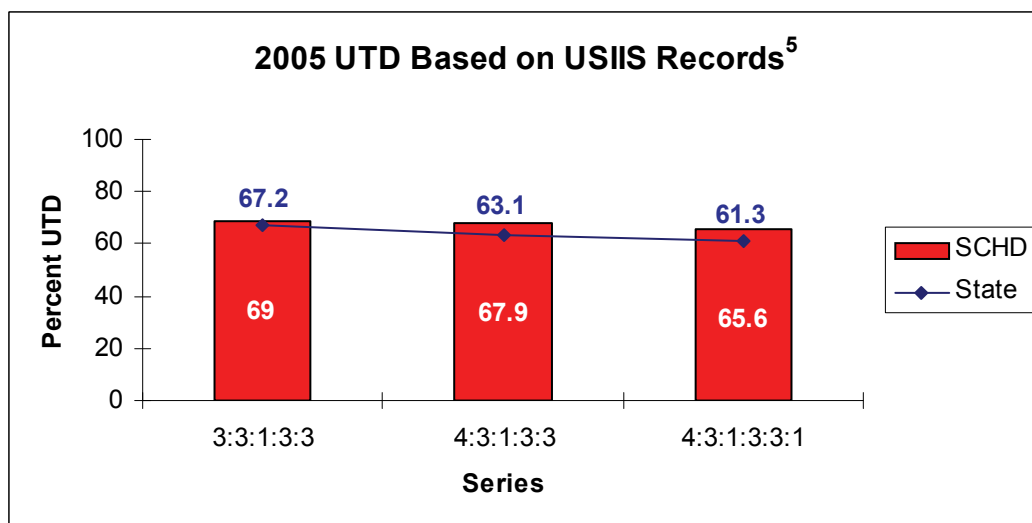
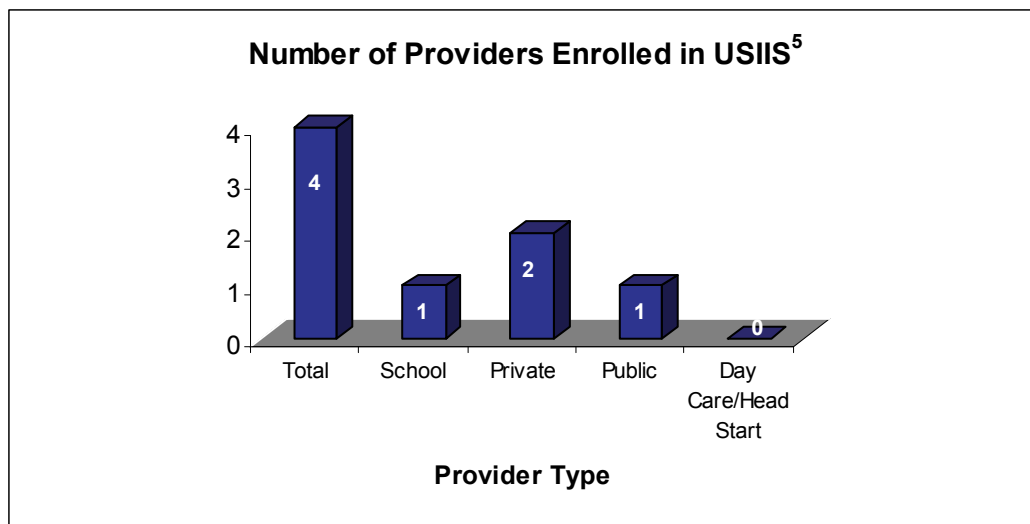
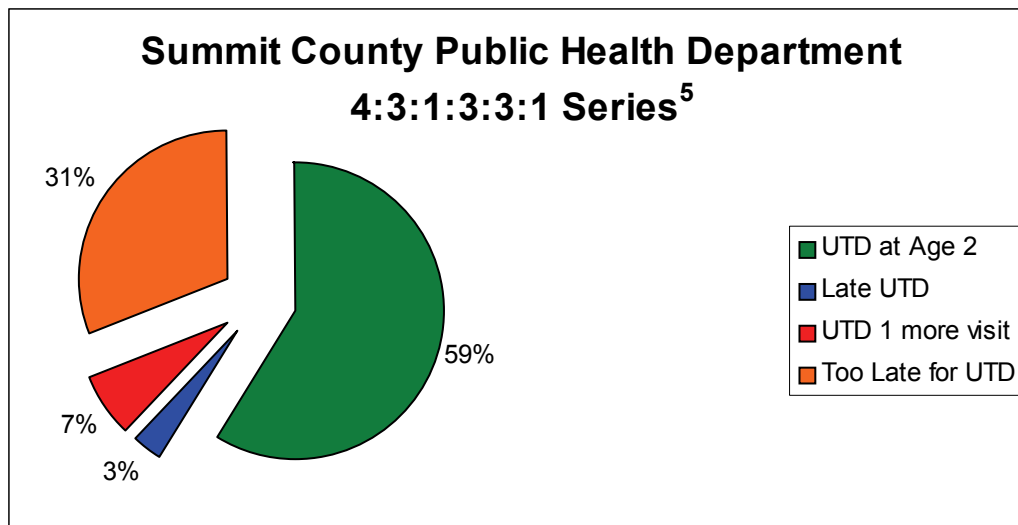
2002	82%
2003	NA
2004	43%
2005	37%
2006	70%

Health Care 2006⁵

Providers/Facilities	Number
Private VFC Providers	4
Public School Nurses	4
Private/Charter School	2
Public Medical Clinics ⁶	2
Hospitals ⁶	0
Long Term Care and Assisted Living Centers ⁷	1
Local Health District Offices ⁶	3

Summit County LHD CASA UTD at Age 2 4:3:1:3:3:1 2003-2006⁵

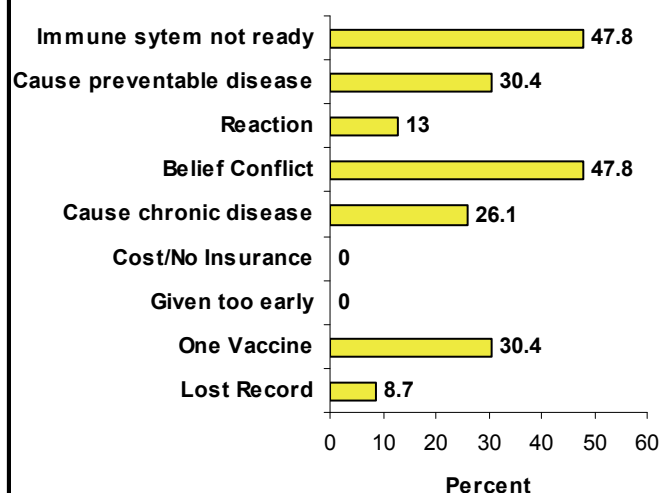




Adequately Immunized by School District 2006⁵

Summit	North Summit		Park City		South Summit	
	Adequately Immunized	Total Exemptions	Adequately Immunized	Total Exemptions	Adequately Immunized	Total Exemptions
School Entry Kindergarten	81.4%	2.9%	80.2%	2.1%	82.8%	2.4%
Second-Dose Measles (K-12)	98.6%	1.3%	95.0%	3.5%	98.8%	1.2%
7th Grade Entry	96.7%	1.1%	94.5%	4.4%	95.7%	3.2%

School Exemption Survey 2006-2007⁵



Child & School Health 2006

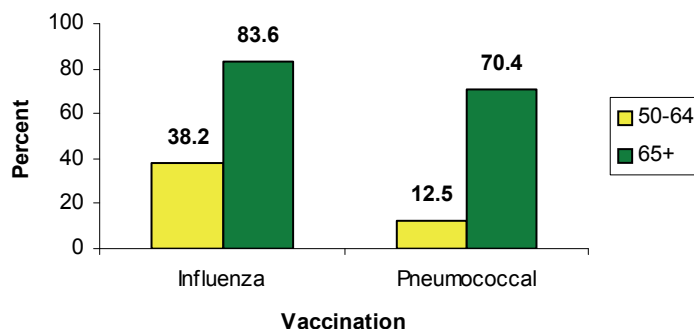
Group	Clinics/ Facilities	Enrollment
WIC Women ¹⁰	2	172
WIC Infants ¹⁰	2	170
WIC Children ¹⁰	2	331
Child Care ¹¹	7	352
Head Start ¹²	+	+
Public Schools ¹³	13	6,679
Private/Charter Schools ¹³	4	353

*Data for Summit County Head Start is included in Davis.

Immunized for Child Care 2006⁵

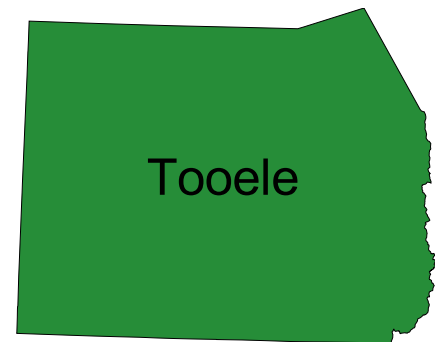
Summit	Adequately Immunized	Total Exemptions
Child Care Facilities and Preschools	87.0%	2.1%
Head Start Centers	Reported in Davis HS	Reported in Davis HS

Influenza* & Pneumococcal Vaccinations 2006¹⁴



* Influenza=within past 12 months, pneumococcal=ever had

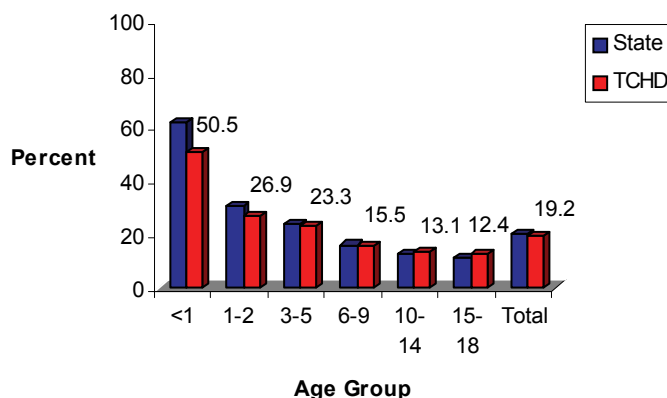
Population 2006 ¹	Number	% of Total
Total Population	53,213	
17 and Under	17,921	33.7%
18 to 34	14,898	28.0%
35 to 49	10,320	19.4%
50 to 64	6,428	12.1%
65 and Over	3,646	6.9%
Poverty 2004-2005 ²	Number	% of Total
Total 0-100% Poverty	5,200	10.27%
17 and Under	2,100	12.19%
18 to 34	1,500	10.22%
35 to 49	1,000	10.52%
50 to 64	300	5.15%
65 and Over	300	7.25%
Total 101-200%	15,400	30.14%
17 and Under	6,500	37.87%
18 to 34	4,500	30.85%
35 to 49	2,400	24.80%
50 to 64	700	11.89%
65 and Over	900	25.52%



Population 2006 ¹	Number	% of Total
Total 0-18	18,713	
<1	1,130	6.0%
1-2	2,220	11.9%
3-5	3,255	17.4%
6-9	4,225	22.6%
10-14	4,617	24.7%
15-18	3,266	17.5%

Medicaid Eligible Population by Age 2006⁴

TCHD Medicaid Eligible 0-18 = 3,594



Insurance 2005	Number	% of Total
Total Uninsured³	4,200	8.1%
18 and Under ²	1,200	6.8%
19 to 34 ²	1,500	11.0%
35 to 49 ²	900	9.1%
50 to 64 ²	**	**
Selected Insurance Type ³	Number	% of Total
Medicare	4,000	8.4%
CHIP*	500	2.9%
Insured, Service Not Covered	4,700	9.9%

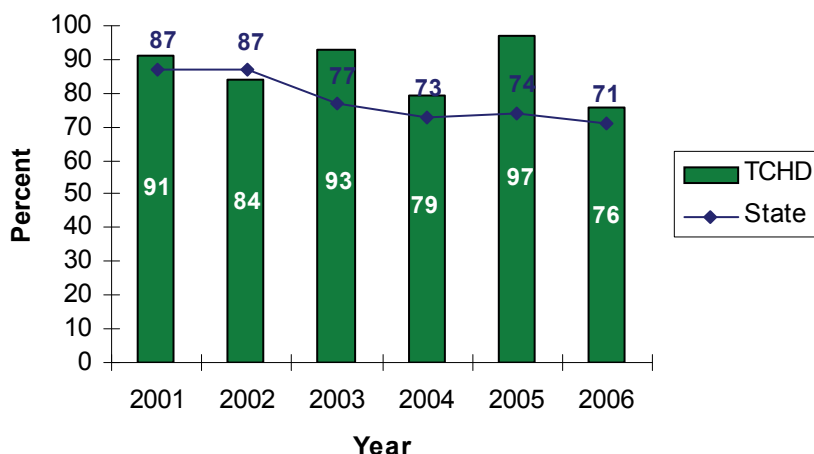
*Children's Health Insurance Program, Ages 0 to 18

Up-to-Date at Age Two by Antigen 2006⁵

County	4 DTaP	3 Polio	1 MMR	3 Hib	3 Hep B	1 Varicella	4:3:1:3:3	4:3:1:3:3:1
Tooele*	82%	92%	90%	95%	93%	87%	76%	74%

*These figures include both standard health department data and Tooele WIC clinic data

Tooele County LHD & State CASA UTD at Age 2 on 4:3:1:3:3 2001-2006⁵



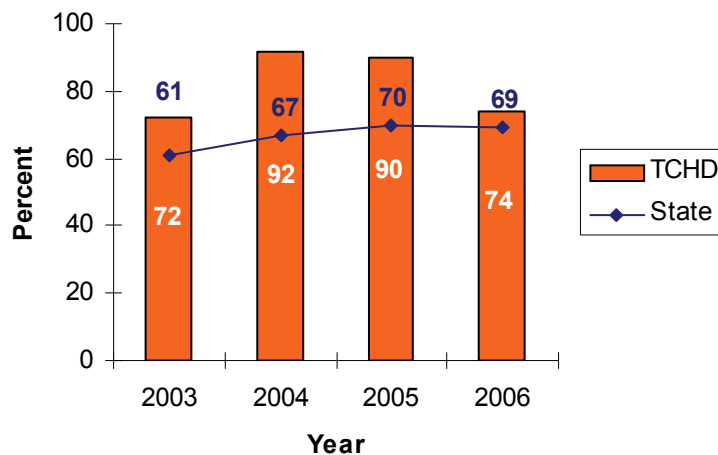
Private VFC Providers Up-to-Date at Age Two (4:3:1:3:3)⁵

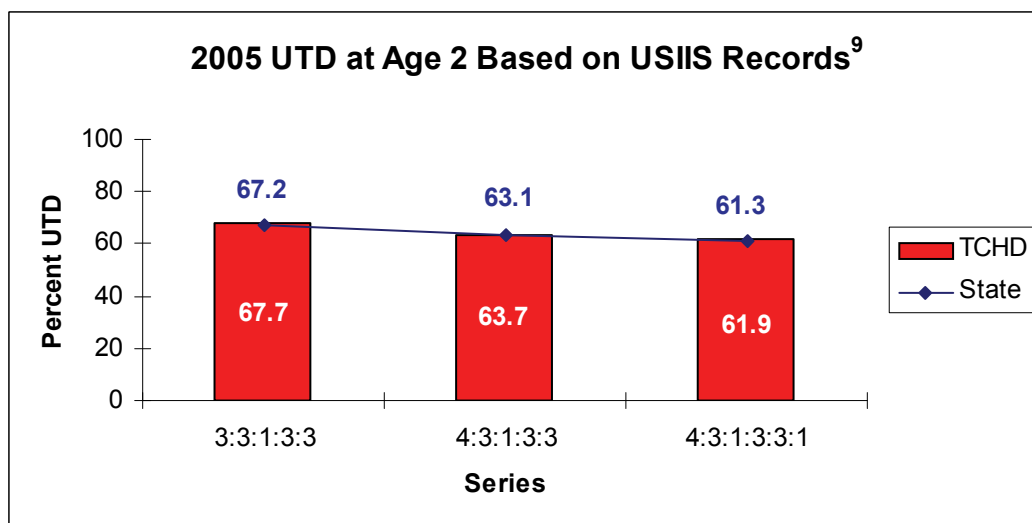
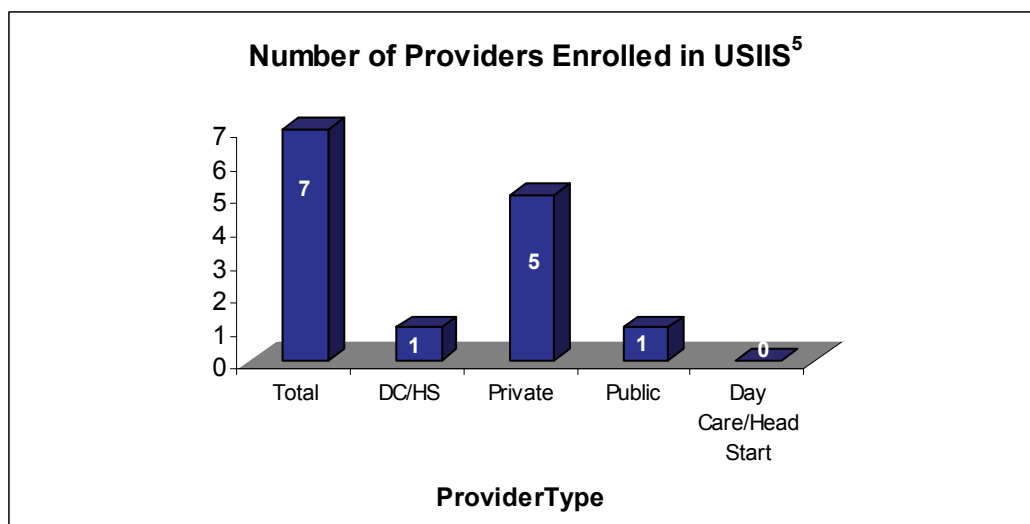
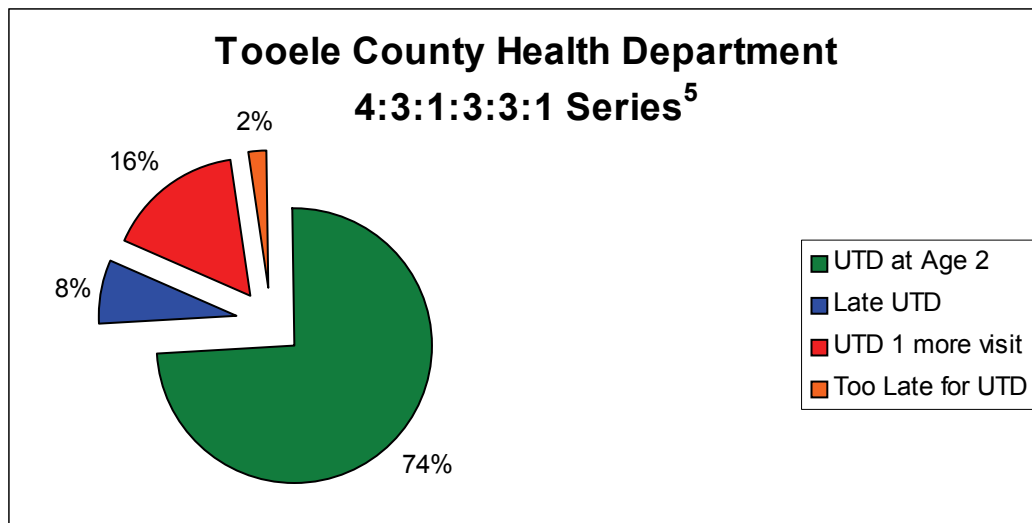
2002	NA
2003	42%
2004	26%
2005	53%
2006	60%

Health Care 2006⁵

Providers/Facilities	Number
Private VFC Providers	11
Public School Nurses	5
Private/Charter School	0
Public Medical Clinics ⁶	2
Hospitals ⁶	1
Long Term Care and Assisted Living Centers ⁷	4
Local Health District Offices ⁶	1

Tooele County LHD CASA UTD at Age 2 4:3:1:3:3:1 2003-2006⁵

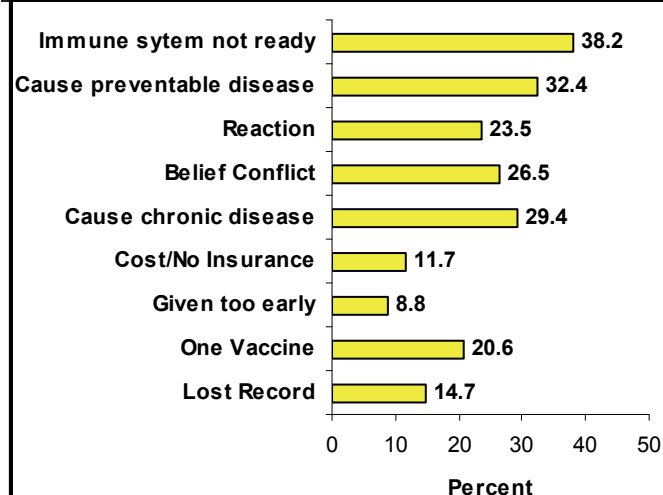




Adequately Immunized by School District 2006⁵

Tooele	Tooele	
	Adequately Immunized	Total Exemptions
School Entry Kindergarten	88.5%	2.6%
Second-Dose Measles (K-12)	98.4%	1.5%
7th Grade Entry	97.2%	2.4%

School Exemption Survey 2006-2007⁵



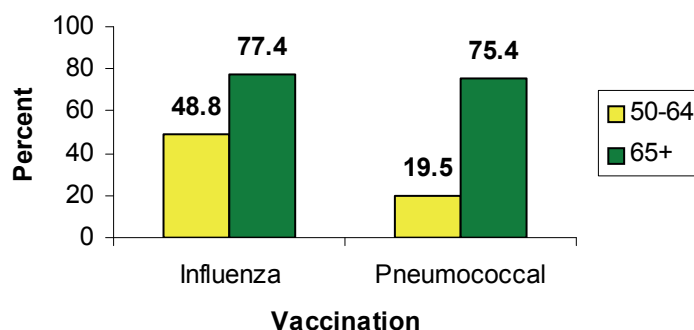
Child & School Health 2006

Group	Clinics/ Facilities	Enrollment
WIC Women ¹⁰	2	419
WIC Infants ¹⁰	2	463
WIC Children ¹⁰	2	837
Child Care ¹¹	4	361
Head Start ¹²	4	165
Public Schools ¹³	21	12,507
Private/Charter Schools ¹³	1	32

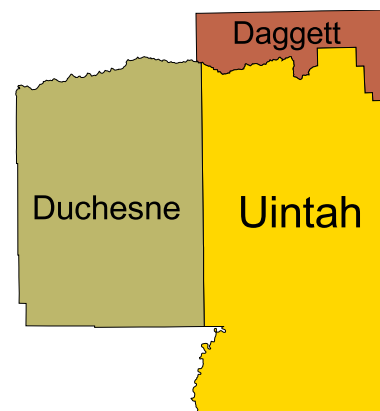
Immunized for Child Care 2006⁵

Tooele	Adequately Immunized	Total Exemptions
Child Care Facilities and Preschools	96.2%	0%
Head Start Centers	84.8%	4.4%

Influenza* & Pneumococcal Vaccinations 2006¹⁴

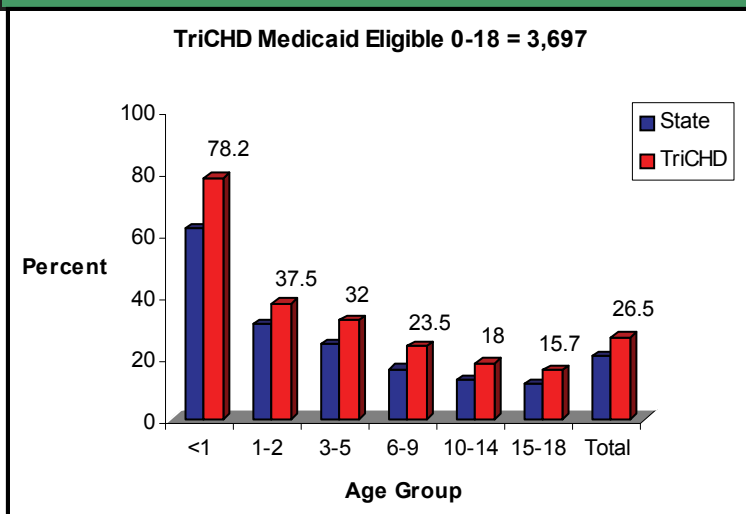


Population 2006 ¹	Number	% of Total
Total Population	42,305	
17 and Under	13,203	31.2%
18 to 34	10,863	25.7%
35 to 49	7,380	17.4%
50 to 64	6,458	15.3%
65 and Over	4,401	10.4%
Poverty 2004-2005 ²	Number	% of Total
Total 0-100% Poverty	4,000	9.38%
17 and Under	1,500	11.33%
18 to 34	1,000	9.52%
35 to 49	700	8.68%
50 to 64	300	4.58%
65 and Over	400	8.37%
Total 101-200% Poverty²	13,900	32.89%
17 and Under	5,200	38.38%
18 to 34	3,900	36.35%
35 to 49	1,900	24.28%
50 to 64	1,100	18.27%
65 and Over	1,800	41.87%



Population 2006 ¹	Number	% of Total
Total 0-18	13,971	
<1	780	5.6%
1-2	1,577	11.3%
3-5	2,307	16.5%
6-9	2,708	19.4%
10-14	3,525	25.2%
15-18	3,074	22.0%
Population 2006 ¹	Number	% of Total
Daggett	979	2.3%
Duchesne	15,049	35.6%
Uintah	26,277	62.1%

Medicaid Eligible Population by Age 2006⁴



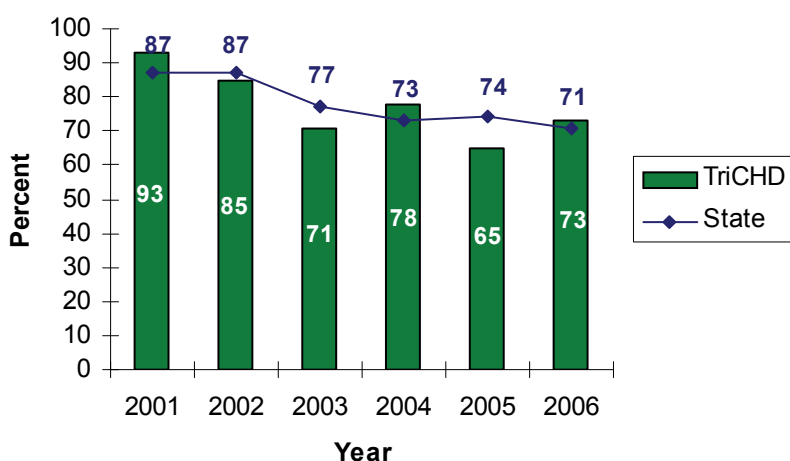
Insurance 2005	Number	% of Total
Total Uninsured³	5,000	11.8%
18 and Under ²	1,300	9.1%
19 to 34 ²	2,000	20.6%
35 to 49 ²	800	10.5%
50 to 64 ²	700	10.6%
Selected Insurance Type ³	Number	% of Total
Medicare	5,100	13.6%
CHIP*	600	4.7%
Insured, Service Not Covered	2,200	5.9%

*Children's Health Insurance Program, Ages 0 to 18

Up-to-Date at Age Two by Antigen 2006⁵

County	4 DTaP	3 Polio	1 MMR	3 Hib	3 Hep B	1 Varicella	4:3:1:3:3	4:3:1:3:3:1
TriCHD	74%	92%	94%	91%	93%	91%	73%	69%

TriCounty LHD & State CASA UTD at Age 2 on 4:3:1:3:3 2001-2006⁵



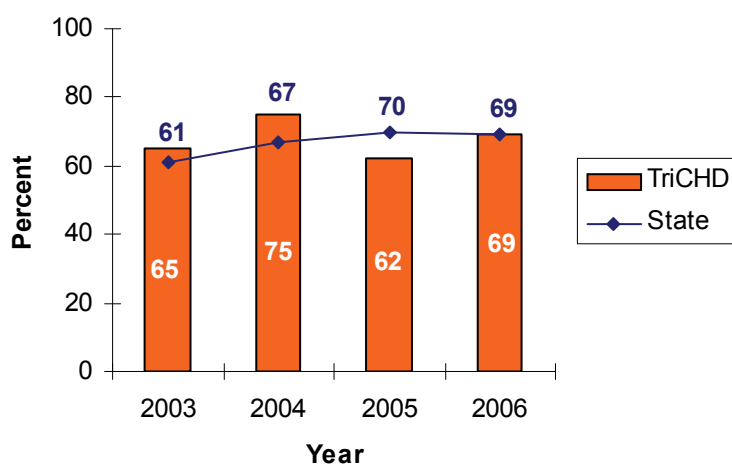
Private VFC Providers Up-to-Date at Age Two (4:3:1:3:3)⁵

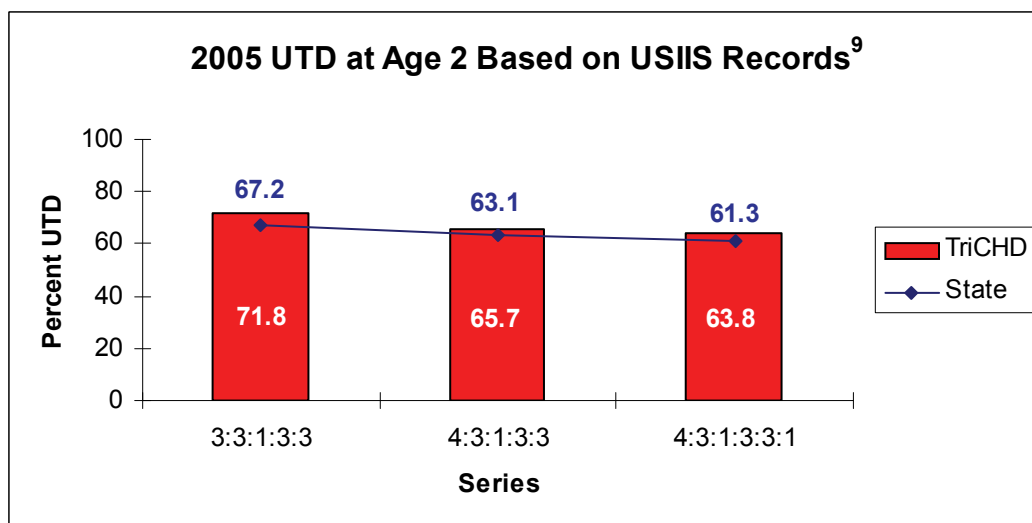
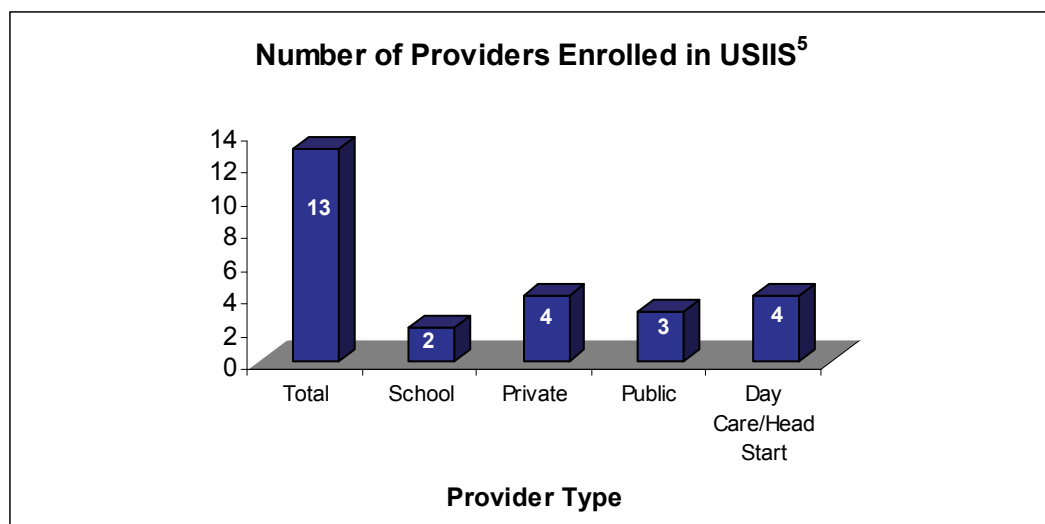
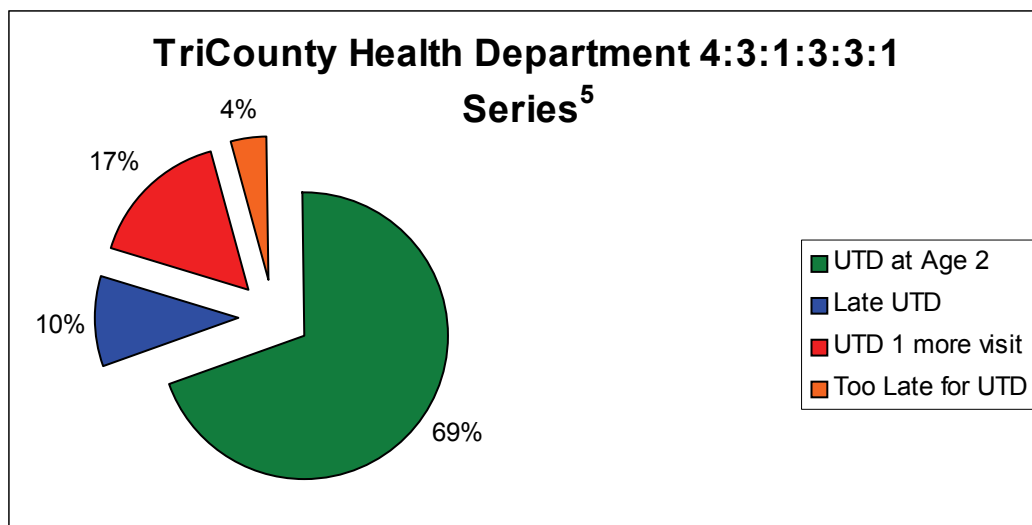
2002	40%
2003	33%
2004	31%
2005	34%
2006	42%

Health Care 2006⁵

Providers/Facilities	Number
Private VFC Providers	6
Public School Nurses	5
Private/Charter School Nurses	0
Public Medical Clinics ⁶	1
Hospitals ⁶	2
Long Term Care and Assisted Living Centers ⁷	5
Local Health District Offices ⁶	4

TriCounty LHD CASA UTD at Age 2 4:3:1:3:3:1 2003-2006⁵

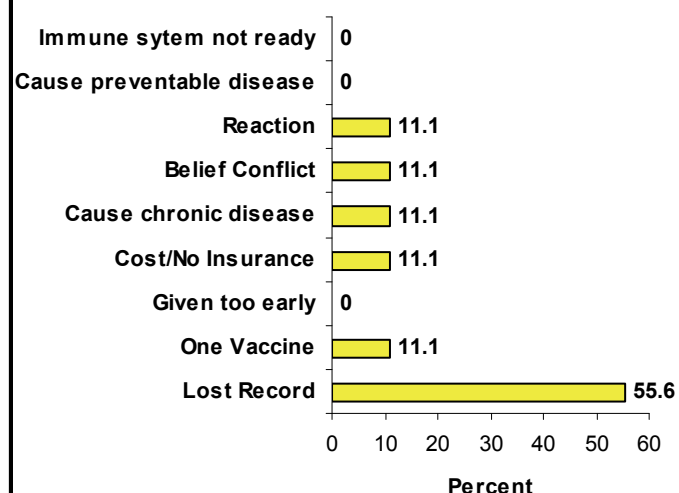




Adequately Immunized by School District 2006⁵

TriCounty	Daggett		Duchesne		Uintah	
	Adequately Immunized	Total Exemptions	Adequately Immunized	Total Exemptions	Adequately Immunized	Total Exemptions
School Entry Kindergarten	100%	0.0%	79.6%	5.0%	88.6%	4.2%
Second-Dose Measles (K-12)	97.0%	2.4%	97.4%	2.5%	97.9%	1.9%
7th Grade Entry	90.3%	3.2%	95.2%	2.9%	96.7%	2.4%

School Exemption Survey 2006-2007⁵



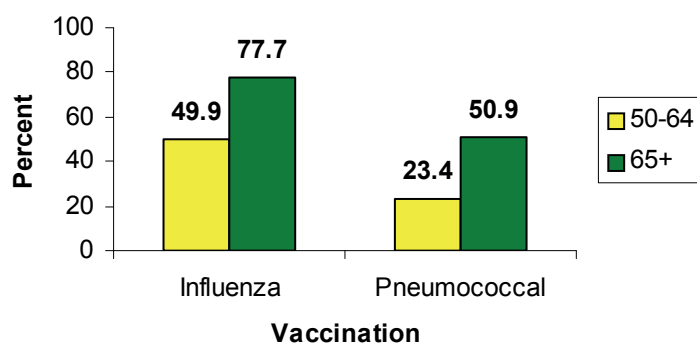
Child & School Health 2006

Group	Clinics/ Facilities	Enrollment
WIC Women ¹⁰	4	234
WIC Infants ¹⁰	4	257
WIC Children ¹⁰	4	433
Child Care ¹¹	9	740
Head Start ¹²	10	226
Public Schools ¹³	26	9,919
Private/Charter Schools ¹³	2	70

Immunized for Child Care 2006⁵

TriCounty	Adequately Immunized	Total Exemptions
Child Care Facilities and Preschools	93.5%	1.1%
Head Start Centers	73.2%	0.4%

Influenza* & Pneumococcal Vaccinations 2006¹⁴

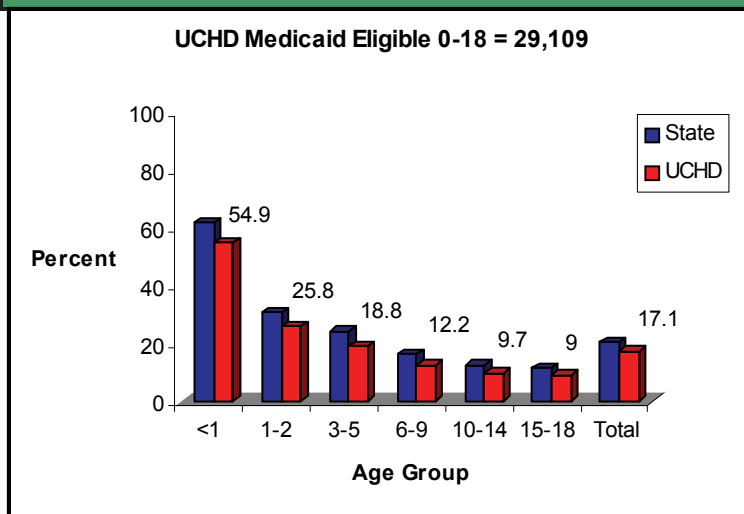


Population 2006 ¹	Number	% of Total
Total Population	470,178	
17 and Under	163,288	34.7%
18 to 34	162,702	34.6%
35 to 49	72,829	15.5%
50 to 64	44,103	9.4%
65 and Over	27,256	5.8%
Poverty 2004-2005 ²	Number	% of Total
Total 0-100% Poverty	51,700	11.6%
17 and Under	18,400	11.97%
18 to 34	25,400	16.14%
35 to 49	6,000	8.90%
50 to 64	**	**
65 and Over	1,100	4.25%
Total 101-200% Poverty²	115,900	26.00%
17 and Under	43,500	28.35%
18 to 34	42,200	26.79%
35 to 49	15,400	22.73%
50 to 64	5,500	13.62%
65 and Over	9,100	34.88%



Population 2006 ¹	Number	% of Total
Total 0-18	170,022	
<1	11,640	6.8%
1-2	22,674	13.3%
3-5	32,732	19.3%
6-9	36,820	21.7%
10-14	37,881	22.3%
15-18	28,275	16.6%

Medicaid Eligible Population by Age 2006⁴



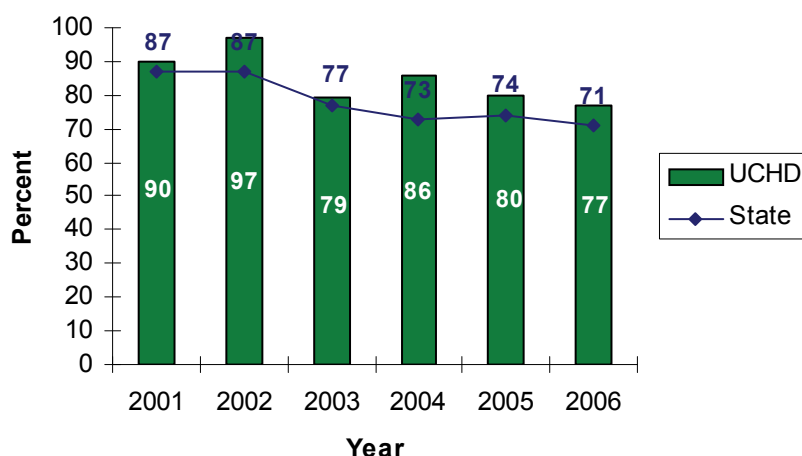
Insurance 2005	Number	% of Total
Total Uninsured³	53,500	11.8%
18 and Under ²	15,800	9.7%
19 to 34 ²	23,000	15.1%
35 to 49 ²	11,700	16.8%
50 to 64 ²	2,400	5.8%
Selected Insurance Type ³	Number	% of Total
Medicare	31,000	7.7%
CHIP*	6,200	4.3%
Insured, Service Not Covered	35,400	8.8%

*Children's Health Insurance Program, Ages 0 to 18

Up-to-Date at Age Two by Antigen 2006⁵

County	4 DTap	3 Polio	1 MMR	3 Hib	3 Hep B	1 Varicella	4:3:1:3:3	4:3:1:3:3:1
Utah Co	81%	94%	93%	95%	94%	91%	77%	75%

Utah County LHD & State CASA UTD at Age 2 on 4:3:1:3:3 2001-2006⁵



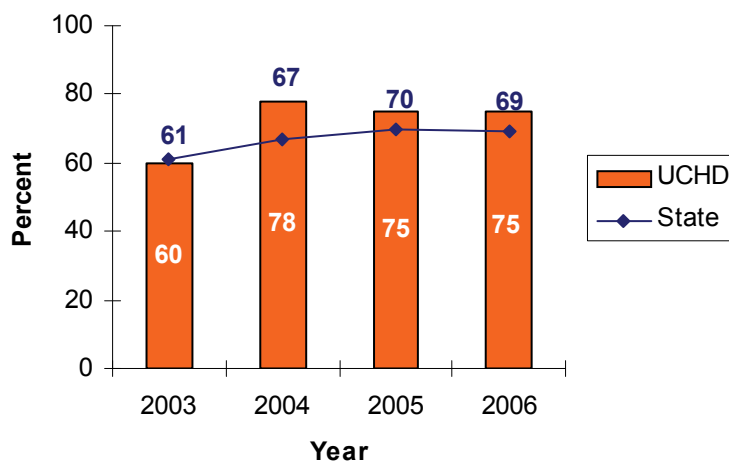
Private VFC Providers Up-to-Date at Age Two (4:3:1:3:3)⁵

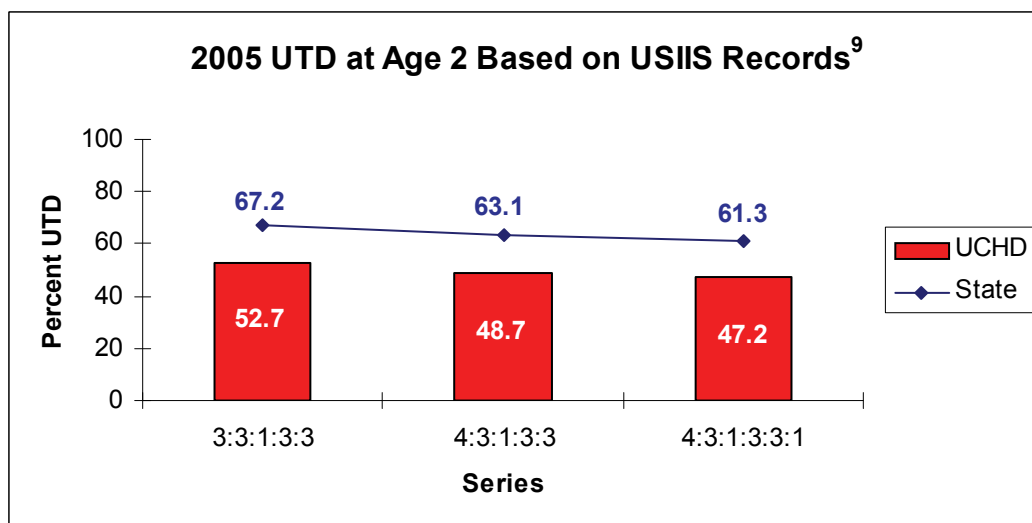
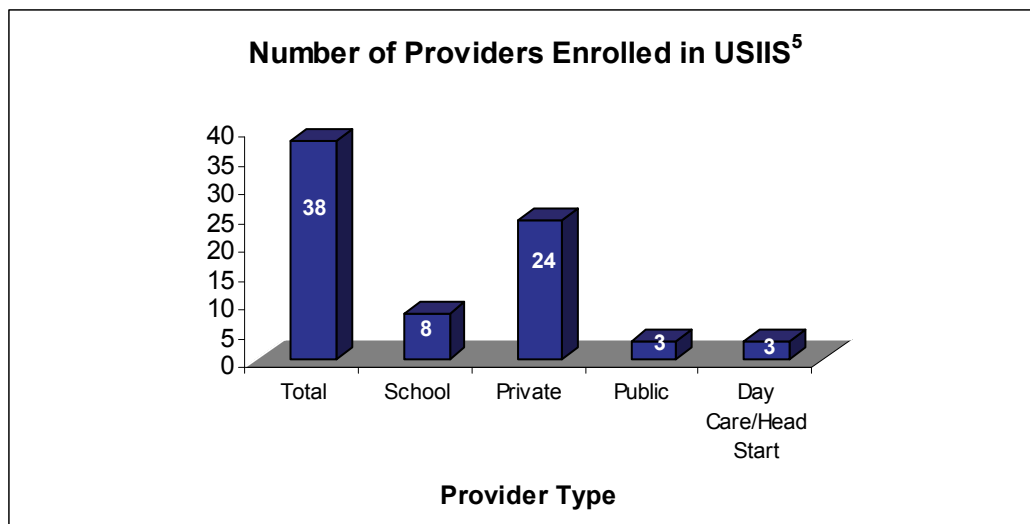
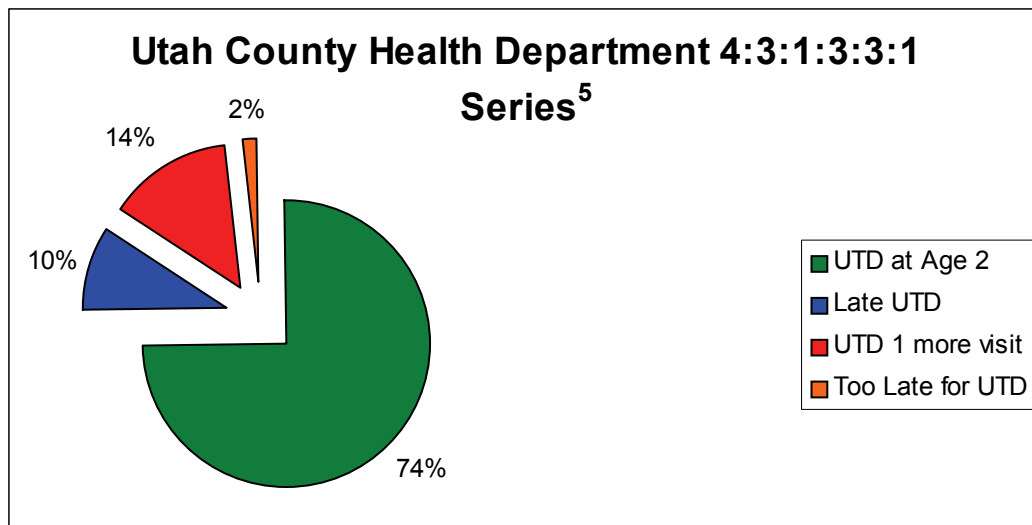
2002	65%
2003	70%
2004	66%
2005	67%
2006	48%

Health Care 2006⁵

Providers/Facilities	Number
Private VFC Providers	51
Public School Nurses	30
Private/Charter School	12
Public Medical Clinics ⁶	3
Hospitals ⁶	5
Long Term Care and Assisted Living Centers ⁷	59
Local Health District Offices ⁶	5

Utah County LHD CASA UTD at Age 2 4:3:1:3:3:1 2003-2006⁵

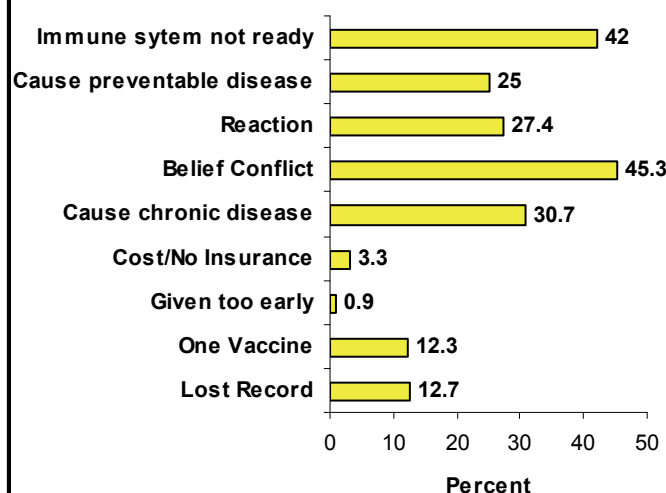




Adequately Immunized by School District 2006⁵

Utah County	Alpine		Nebo		Provo	
	Adequately Immunized	Total Exemptions	Adequately Immunized	Total Exemptions	Adequately Immunized	Total Exemptions
School Entry Kindergarten	78.0%	3.6%	78.6%	4.1%	82.3%	3.1%
Second-Dose Measles (K-12)	95.7%	3.3%	93.8%	3.7%	96.6%	3.4%
7th Grade Entry	89.6%	4.2%	85.9%	4.8%	93.5%	3.7%

School Exemption Survey 2006-2007⁵



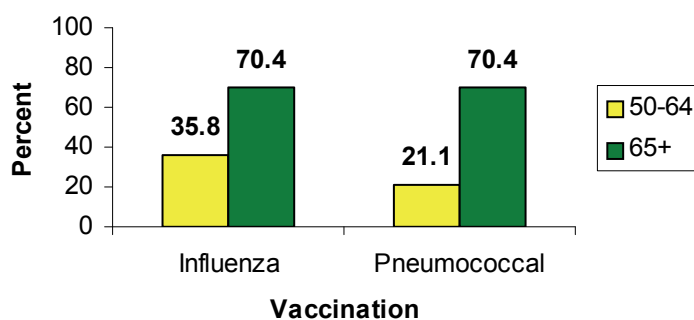
Child & School Health 2006

Group	Clinics/Facilities	Enrollment
WIC Women ⁹	4	3,667
WIC Infants ⁹	4	3,683
WIC Children ⁹	4	6,039
Child Care ¹¹	62	3,439
Head Start ¹²	37	877
Public Schools ¹³	114	95,209
Private/Charter Schools ¹³	29	8,685

Immunized for Child Care 2006⁵

Utah County	Adequately Immunized	Total Exemptions
Child Care Facilities and Preschools	84.9%	2.4%
Head Start Centers	93.8%	2.7%

Influenza* & Pneumococcal Vaccinations 2006¹⁴



* Influenza=within past 12 months, pneumococcal=ever had

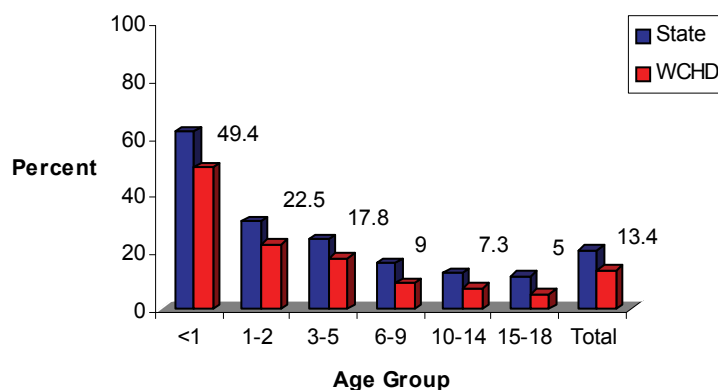
Population 2006 ¹	Number	% of Total
Total Population	20,974	
17 and Under	6,636	31.6%
18 to 34	5,833	27.8%
35 to 49	4,159	19.8%
50 to 64	2,782	13.3%
65 and Over	1,564	7.5%
Poverty 2004-2005 ²	Number	% of Total
Total 0-100% Poverty	1,500	7.59%
17 and Under	400	6.63%
18 to 34	700	13.49%
35 to 49	100	2.81%
50 to 64	100	5.21%
65 and Over	**	**
Total 101-200% Poverty²	5,100	25.99%
17 and Under	1,800	29.19%
18 to 34	1,500	27.91%
35 to 49	1,000	24.03%
50 to 64	400	15.24%
65 and Over	400	24.55%



Population 2006 ¹	Number	% of Total
Total 0-18	6,996	
<1	427	6.1%
1-2	841	12.0%
3-5	1,200	17.2%
6-9	1,410	20.2%
10-14	1,709	24.4%
15-18	1,409	20.1%

Medicaid Eligible Population by Age 2006⁴

WCHD Medicaid Eligible 0-18 = 936



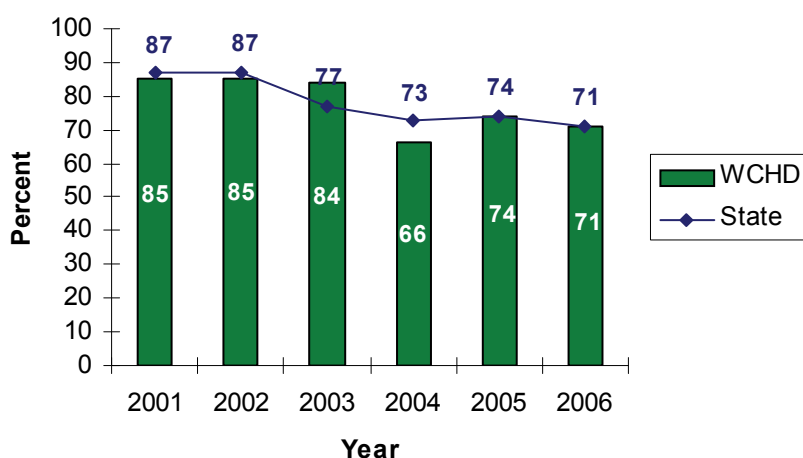
Insurance 2005	Number	% of Total
Total Uninsured³	2,000	9.9%
18 and Under ²	600	8.3%
19 to 34 ²	700	14.1%
35 to 49 ²	400	9.1%
50 to 64 ²	200	6.7%
Selected Insurance Type ³	Number	% of Total
Medicare	1,800	10.2%
CHIP*	200	2.6%
Insured, Service Not Covered	1,100	6.1%

*Children's Health Insurance Program, Ages 0 to 18

Up-to-Date at Age Two by Antigen 2006⁵

County	4 DTaP	3 Polio	1 MMR	3 Hib	3 Hep B	1 Varicella	4:3:1:3:3	4:3:1:3:3:1
Wasatch	78%	90%	90%	80%	92%	83%	71%	70%

Wasatch County LHD & State CASA UTD at Age 2 on 4:3:1:3:3 2001-2006⁵



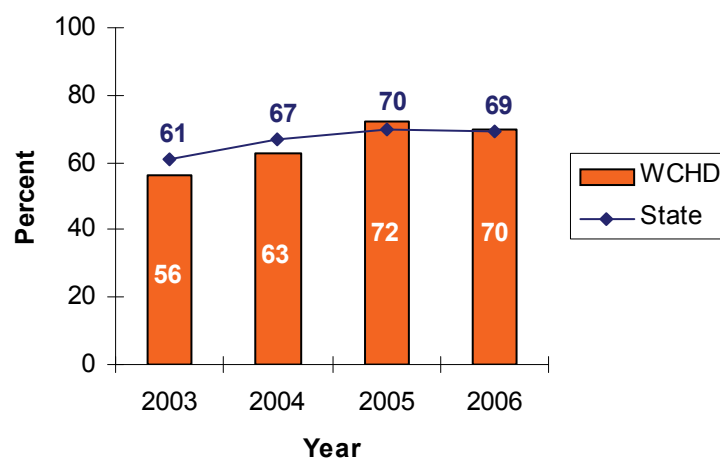
Private VFC Providers Up-to-Date at Age Two (4:3:1:3:3)⁵

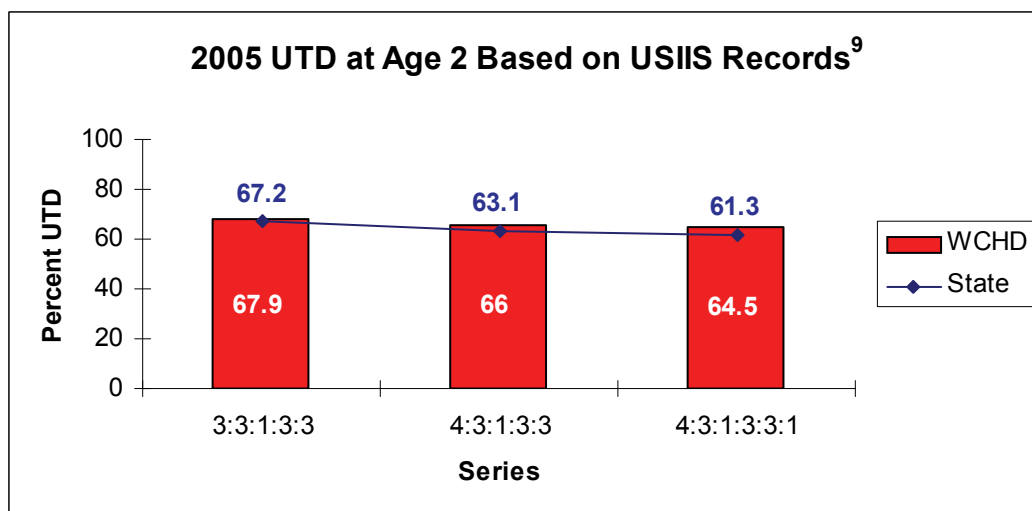
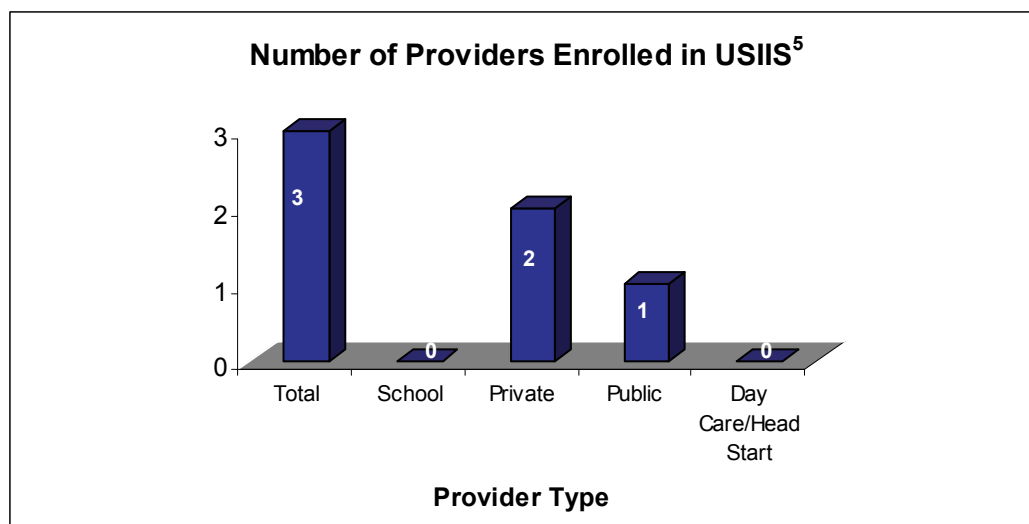
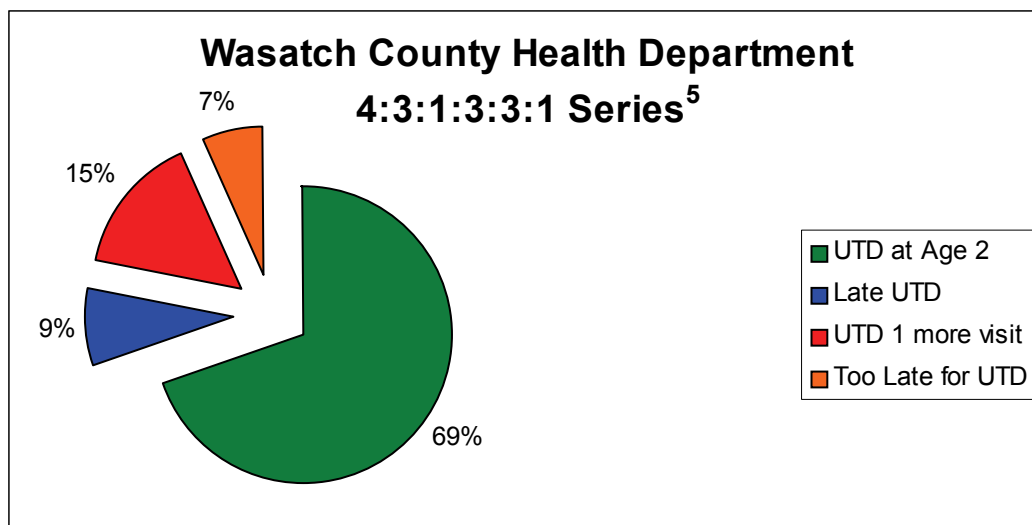
2002	30%
2003	NA
2004	64%
2005	39%
2006	58%

Health Care 2006⁵

Providers/Facilities	Number
Private VFC Providers	2
Public School Nurses	1
Private/Charter School Nurses	0
Public Medical Clinics ⁶	0
Hospitals ⁶	1
Long Term Care and Assisted Living Centers ⁷	1
Local Health District Offices ⁶	1

Wasatch County LHD CASA UTD at Age 2 4:3:1:3:3:1 2003-2006⁵

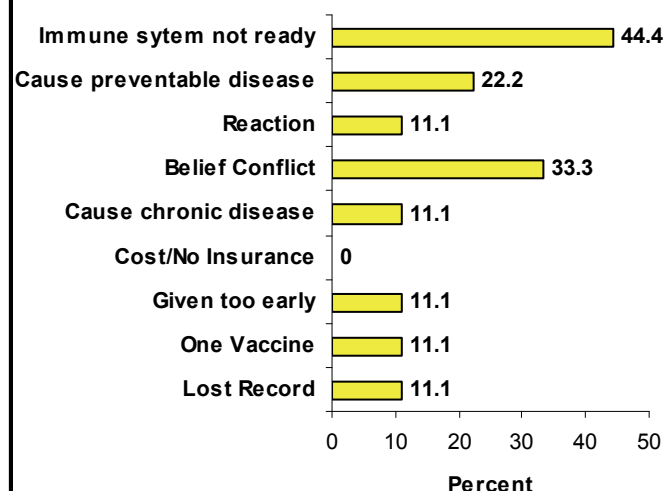




Adequately Immunized by School District 2006⁵

Wasatch	Wasatch	
	Adequately Immunized	Total Exemptions
School Entry Kindergarten	80.9%	3.5%
Second-Dose Measles (K-12)	95.7%	3.9%
7th Grade Entry	83.4%	1.8%

School Exemption Survey 2006-2007⁵



Child & School Health 2006

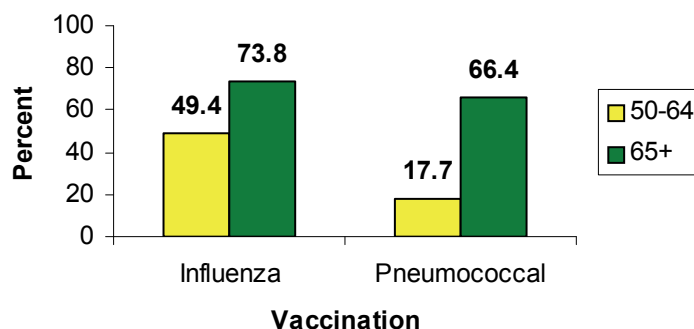
Group	Clinics/ Facilities	Enrollment
WIC Women ¹⁰	1	106
WIC Infants ¹⁰	1	114
WIC Children ¹⁰	1	203
Child Care ¹¹	2	85
Head Start ¹²	+	+
Public Schools ¹³	7	4,398
Private/Charter Schools ¹³	1	141

*Data for Wasatch Head Start reported with Utah County.

Immunized for Child Care 2006⁵

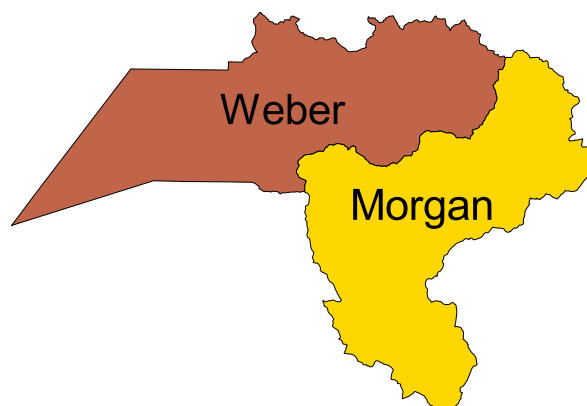
Wasatch	Adequately Immunized	Total Exemptions
Child Care Facilities and Preschools	100%	0%
Head Start Centers	Reported in Utah Co HS	Reported in Utah Co HS

Influenza* & Pneumococcal Vaccinations 2006¹⁴



* Influenza=within past 12 months, pneumococcal=ever had

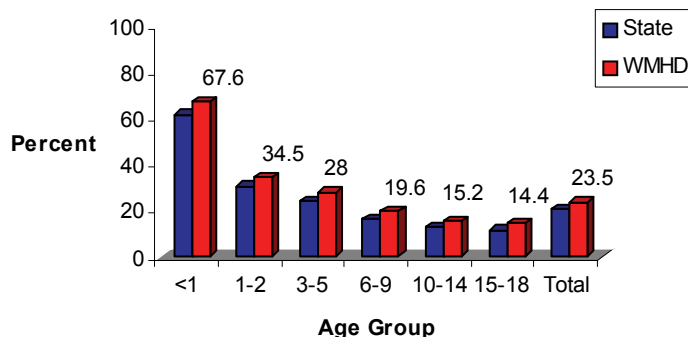
Population 2006 ¹	Number	% of Total
Total Population	223,483	
17 and Under	67,665	30.3%
18 to 34	60,104	26.9%
35 to 49	41,911	18.8%
50 to 64	31,816	14.2%
65 and Over	21,987	9.8%
Poverty 2004-2005 ²	Number	% of Total
Total 0-100% Poverty	25,900	11.80%
17 and Under	10,700	16.06%
18 to 34	9,400	15.71%
35 to 49	4,100	9.93%
50 to 64	900	3.04%
65 and Over	**	**
Total 101-200% Poverty²	47,700	21.73%
17 and Under	20,700	31.03%
18 to 34	13,000	21.76%
35 to 49	5,600	13.38%
50 to 64	3,100	10.48%
65 and Over	5,200	24.04%



Population 2006 ¹	Number	% of Total
Total 0-18	70,945	
<1	4,144	5.8%
1-2	8,302	11.7%
3-5	12,242	17.3%
6-9	15,104	21.3%
10-14	17,340	24.4%
15-18	13,813	19.5%
Population 2006 ¹	Number	% of Total
Morgan	8,782	3.9%
Weber	214,701	96.1%

Medicaid Eligible Population by Age 2006⁴

WMHD Medicaid Eligible 0-18 = 16,688



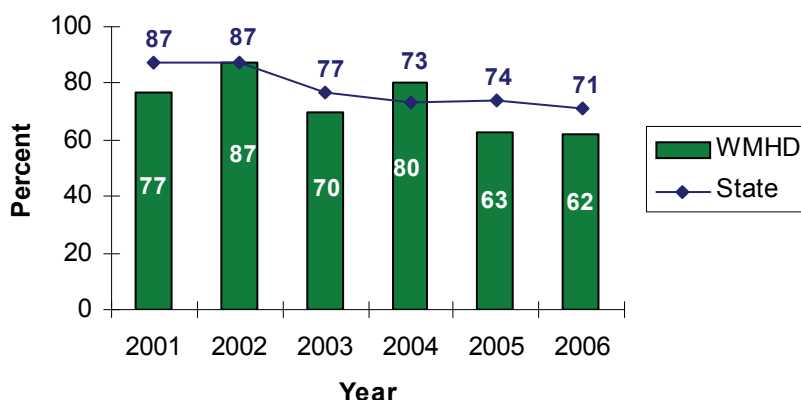
Insurance 2005	Number	% of Total
Total Uninsured³	31,400	14.2%
18 and Under ²	6,300	9.0%
19 to 34 ²	11,400	20.1%
35 to 49 ²	4,100	9.8%
50 to 64 ²	1,500	5.8%
Selected Insurance Type ³	Number	% of Total
Medicare	31,000	16.3%
CHIP*	**	**
Insured, Service Not Covered	13,000	6.8%

*Children's Health Insurance Program, Ages 0 to 18

Up-to-Date at Age Two by Antigen 2006⁵

County	4 DTap	3 Polio	1 MMR	3 Hib	3 Hep B	1 Varicella	4:3:1:3:3	4:3:1:3:3:1
Morgan	NA	NA	NA	NA	NA	NA	NA	NA
Weber	68%	90%	86%	86%	84%	86%	62%	62%
WMHD	68%	90%	86%	86%	84%	86%	62%	62%

Weber-Morgan LHD & State CASA UTD at Age 2 on 4:3:1:3:3 2001-2006⁵



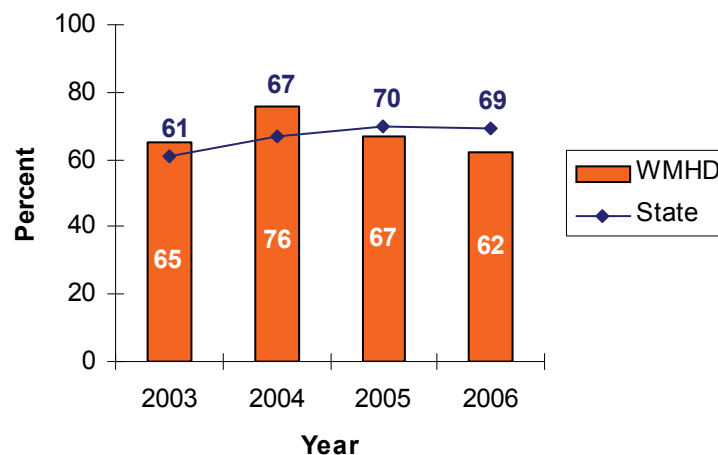
Private VFC Providers Up-to-Date at Age Two (4:3:1:3:3)⁵

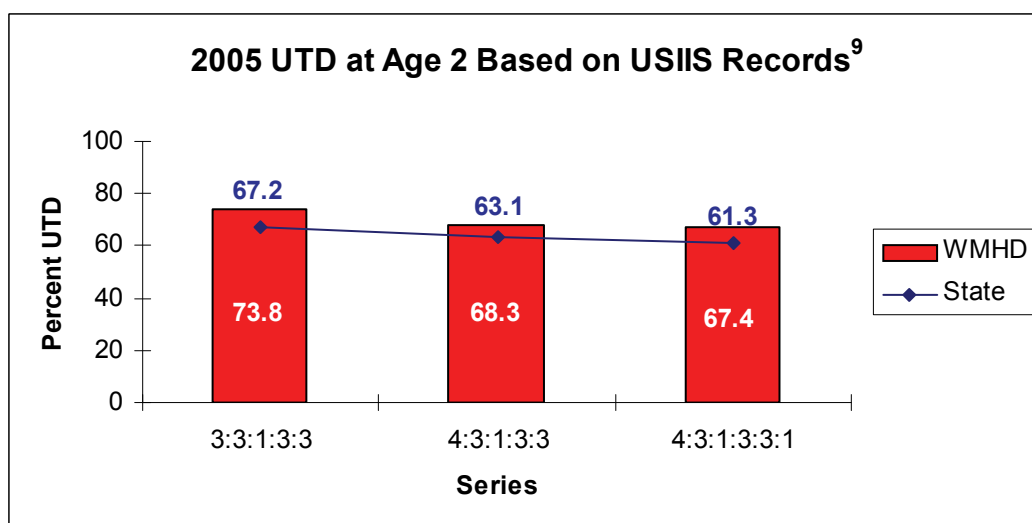
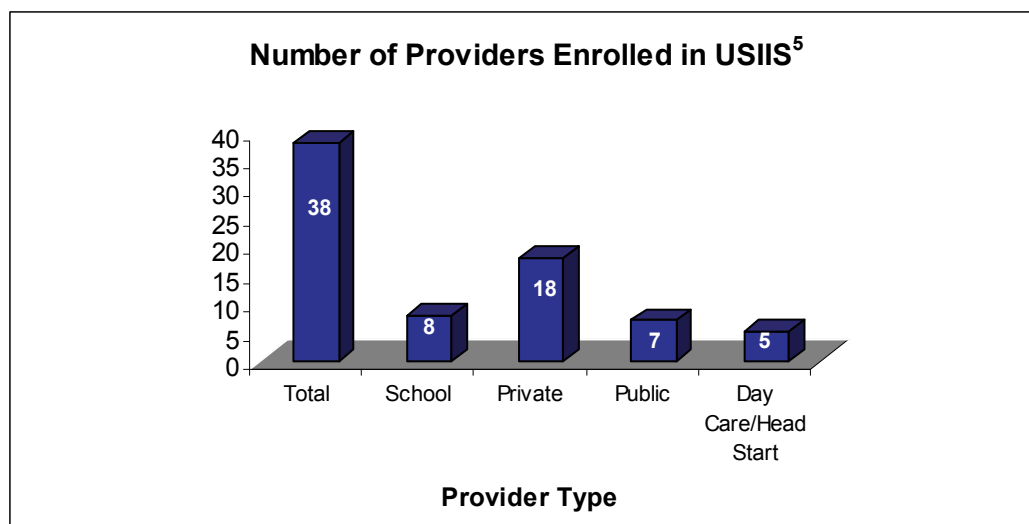
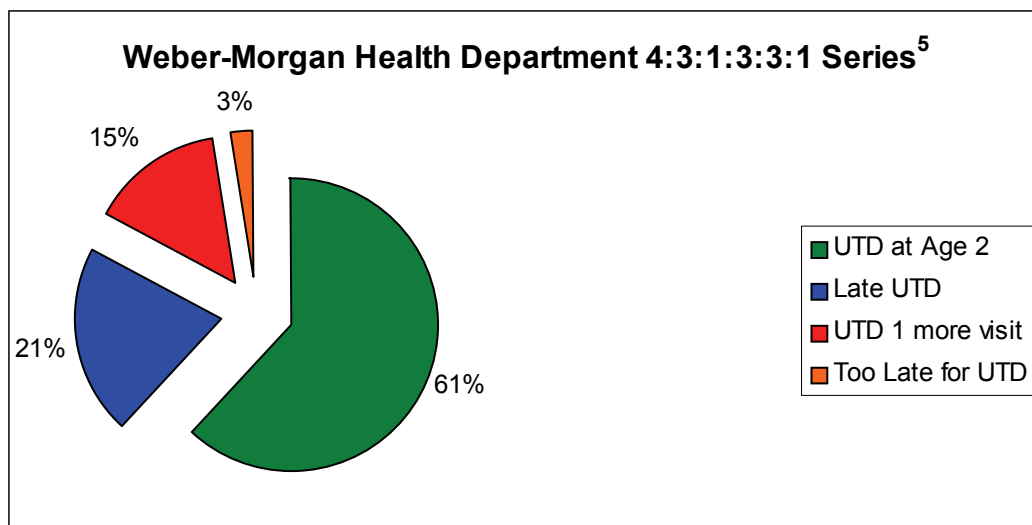
2002	78%
2003	77%
2004	61%
2005	81%
2006	57%

Health Care 2006⁵

Providers/Facilities	Number
Private VFC Providers	22
Public School Nurses	14
Private/Charter School	3
Public Medical Clinics ⁶	2
Hospitals ⁶	2
Long Term Care and Assisted Living Centers ⁷	22
Local Health District Offices ⁶	2

Weber-Morgan LHD CASA UTD at Age 2 4:3:1:3:3:1 2003-2006⁵

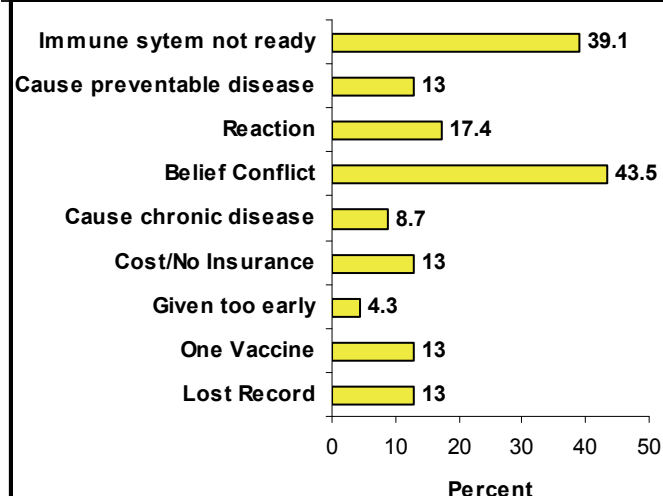




Adequately Immunized by School District 2006⁵

Weber-Morgan	Morgan		Ogden		Weber	
	Adequately Immunized	Total Exemptions	Adequately Immunized	Total Exemptions	Adequately Immunized	Total Exemptions
School Entry Kindergarten	74.1%	4.2%	90.0%	1.5%	87.3%	1.9%
Second-Dose Measles(K-12)	97.0%	1.5%	98.2%	1.2%	98.4%	1.2%
7th Grade Entry	99.3%	0.7%	96.2%	1.9%	97.2%	2.1%

School Exemption Survey 2006-2007⁵



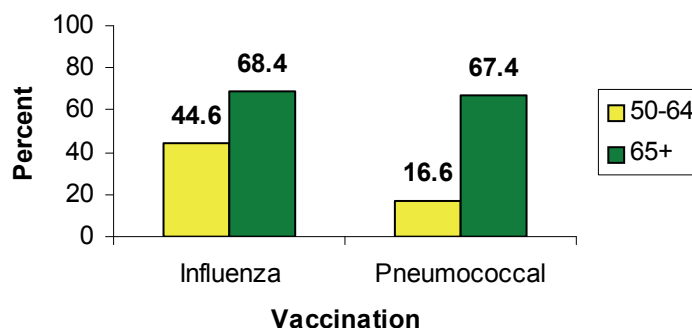
Child & School Health 2006

Group	Clinics/ Facilities	Enrollment
WIC Women ¹⁰	2	1,549
WIC Infants ¹⁰	2	1,586
WIC Children ¹⁰	2	3,128
Child Care ¹¹	43	2,812
Head Start ^{12,+}	21	709
Public Schools ¹³	65	43,751
Private/Charter Schools ¹³	12	2,233

Immunized for Child Care 2006⁵

Weber-Morgan	Adequately Immunized	Total Exemptions
Child Care Facilities and Preschools	90.7%	1.0%
Head Start Centers ⁺	99.7%	0.3%

Influenza* & Pneumococcal Vaccinations 2006¹⁴



* Head Start data for Weber-Morgan health district only includes data for Weber county. Morgan is included in Davis information.

*Influenza=within past 12 months, pneumococcal=ever had

One-Month Voucher Program Women, Infants and Children and Immunization Collaboration

The Utah Immunization Program has been developing methods to increase the up-to-date (UTD) immunization rates throughout the state. One collaborative approach was piloted in the Tooele County Health Department where the Women, Infants and Children (WIC) Program and the Utah Immunization Program implemented the WIC One-Month Voucher Program (OMV) from December 2005 through June 2006.

Under the OMV Program a WIC participant who lacked an UTD immunization record was issued a food/formula voucher for a one month time frame rather than the typical three-month period. One-month vouchers were issued until the client presented an UTD immunization record. The client had the option of receiving an immunization at the time of the visit, whereupon they received three months of vouchers the same day. Clients who were not UTD were sent priority messages through the WIC information system. Tooele WIC also extended business hours to accommodate clients that required immunizations. A full-time WIC nurse was hired to help with the additional work load. The Salt Lake Valley Health Department (SLVHD) will implement an OMV program beginning sometime in 2007. Their program is similar to the Tooele program, however a two-month voucher can also be given if the client receives a vaccination at the time of their visit but is still not UTD. Data from the SLVHD program should be available for the Immunization Coverage Report, State of Utah: 2008.

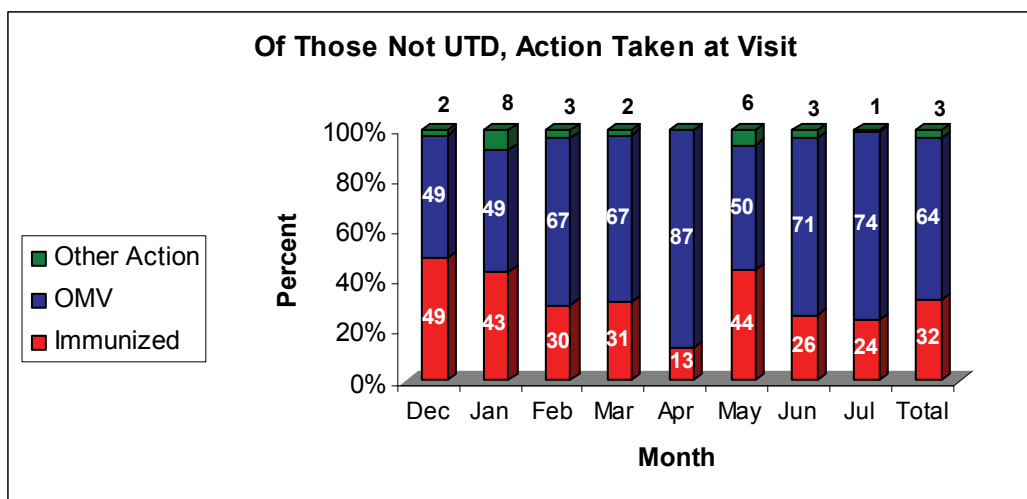
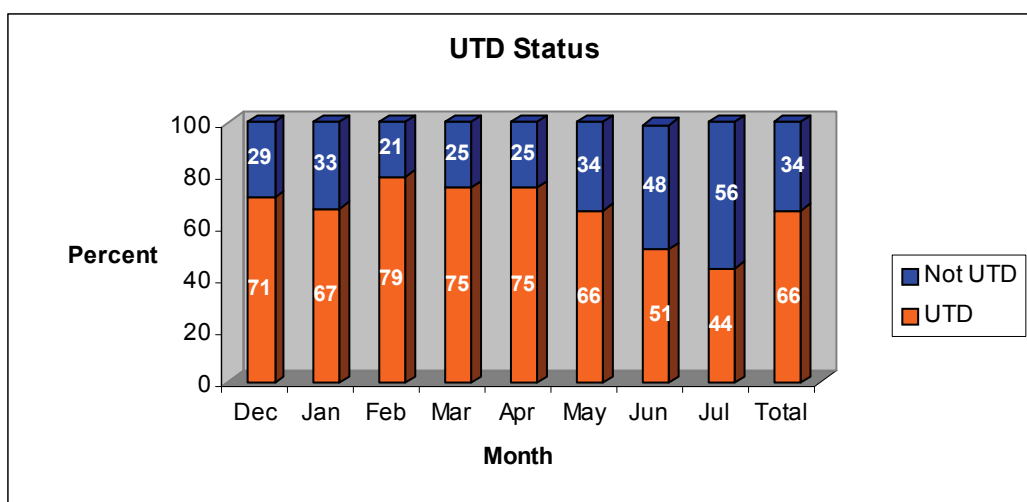
These Utah OMV programs were modeled after successful programs in states and municipalities. Analysis of the Chicago OMV program indicated that UTD vaccination status for 2-year-old children increased from 56% to 89%. Over the 15-month period of analysis the percentage of children needing voucher incentives decreased from 51% to 12%.ⁱ The New Mexico Region 4 WIC program manager reports that over a 10-year period immunization rates for their clients increased from 35% to 91% following their OMV program.

Final data for the Tooele WIC One-Month Voucher pilot program were collected and processed during the summer of 2006 and presented at the annual Utah State WIC Conference in August of the same year. Data were not available to compare pre-OMV program immunization percentages to post program percentages, but basic descriptive data are presented on the following page. The table at the top of the next page displays the number of WIC clients that were UTD or not UTD. The first graph on the next page illustrates the percentage of the population that was either UTD or not UTD. The table at the top of the next page also displays the type of action taken (OMV, immunized, other) among those who were not UTD. The table at the bottom of the page illustrates the percentage of each action taken among those not UTD.

ⁱ Hoekstra EJ, et al. Impact of a large scale immunization initiative in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). JAMA, 280(13), 1143-7.

2006 Tooele Results

Month	Total Clients	UTD	Not UTD	OMV	Immunized	Other Action*
December	119	84	35	17	17	1
January	148	99	49	24	21	4
February	142	112	30	20	9	1
March	171	129	42	28	13	1
April	120	90	30	26	4	0
May	142	94	48	24	21	3
June	158	82	76	54	20	2
July	131	58	73	49	16	1
All Months	1,131	748	383	242	121	13



Utah County Childhood Immunization Study 2005-2006, Update

In the fall of 2005, the Utah Department of Health, together with the Utah County Health Department, initiated a study of barriers to childhood immunizations in Utah County. The study was an extension of the Immunization Summit that brought together various stakeholders from throughout the state. Utah County was seen as a key beginning area for study due to its high rate of births and high proportion of children within its overall population.

Dr. Gloria Wheeler, George W. Romney Institute of Public Management at Brigham Young University, was contacted to help conduct the study. Dr. Wheeler and graduate students from her “Statistics for Managers” winter course organized the writing of a survey that would gather information on family attitudes, knowledge, beliefs, and barriers to immunizations for children. Families with children from 19 to 35 months were contacted to participate in the survey. The study population was representative of the Utah County population with respect to race/ethnicity. The survey respondents were primarily female (85%). The mothers (82%) were more wealthy than the general populationⁱ, and had a higher education levelⁱ than the general population. Some preliminary results were reported in the 2006 Coverage Report. Below are additional findings.

- 12.4% of respondents agreed or strongly agreed that they received most of their vaccine knowledge from the media.
- 31.3% of respondents agreed or strongly agreed that they received most of their vaccine knowledge from family or friends.
- 85.5% agreed or strongly agreed that they expect their physician to inform them about which vaccines their child needs, and 77.2% agreed or strongly agreed that what they know about vaccines comes mostly from their health care provider.
- 37.8% agreed or strongly agreed that it is okay to request vaccines from their health care provider that they feel their child needs.
- 67.9% agreed or strongly agreed that the risk of complications from vaccines was low.
- 26.1% agreed or strongly agreed that it was okay to immunize a child when they are sick.
- 22.3% slightly agreed, agreed or strongly agreed that vaccines are dangerous because they are suspected to cause problems such as autism, learning disabilities, ADHD and asthma.
- 40.2% reported that they knew of services that provided free vaccine
- 3.2% lacked reliable transportation to their health care provider.
- 37.1% agreed or strongly agreed that they would like to know more about vaccinations.

One clear finding is that most parents and care givers report receiving vaccine information from their health care provider but are unlikely to initiate conversation to learn more about their child's specific vaccination needs. Many parents are still worried about complications following vaccination. Further education pertaining to perceived vaccine risks such as autism and under what circumstances it is appropriate to vaccinate when a child is sick also seems necessary. A follow-up study may be useful to determine if people who qualify for the Vaccines for Children (VFC) Program know where to go to obtain free vaccine. The challenge for any new immunization education is that a minority of parents are interested in receiving additional vaccine information.

ⁱ In comparison to the Utah County income and education data reported by the 2005 U.S. Census

IMMUNIZATION REPORT FOR LONG TERM CARE FACILITIES

Long term care facilities are required to report influenza and pneumococcal immunization status of patients and the influenza and hepatitis B immunization status of employees to the Utah Immunization Program. Completion of the annual report is necessary to prevent sanctioning of a facility's license.

The report includes persons who are residents and employees of a facility between October 1st and December 31st of the survey year. The survey is to be completed on-line no later than January 31st of the next year. Facilities reporting are: hospitals (swing beds and transitional care beds), nursing care facilities, small health care facilities, and type I and type II assisted living facilities. All of the care facilities reported for 2006 (262 facilities).

A portion of the survey is reported here:

Influenza (flu) immunizations: given during the report time period

Pneumococcal immunizations: given at any time

Hepatitis B immunizations: given at any time to an employee having direct patient contact

(Note: A percentage in *italics* indicates that there was a statistically significant improvement from the previous year)

STATE OF UTAH**ADULT IMMUNIZATIONS LONG TERM CARE FACILITIES 2006**

<i>State of Utah</i>	Number	Flu	Pneumococcal	Hepatitis B
Facilities	262	NA	NA	NA
Residents	14,235	72.0%	<i>44.1%</i>	NA
Employees				
All	15,537	<i>48.2%</i>	NA	NA
Direct Patient Care	10,504	NA	NA	56.1%

Bear River Health District

	Number	Flu	Pneumococcal	Hepatitis B
Facilities	17	NA	NA	NA
Residents	748	70.5%	60.6%	NA
Employees				
All	1195	43.1%	NA	NA
Direct Patient Care	850	NA	NA	49.1%

Central Utah Public Health District

	Number	Flu	Pneumococcal	Hepatitis B
Facilities	15	NA	NA	NA
Residents	344	82.6%	55.8%	NA
Employees				
All	745	78.0%	NA	NA
Direct Patient Care	413	NA	NA	81.8%

Davis County Health District

	Number	Flu	Pneumococcal	Hepatitis B
Facilities	26	NA	NA	NA
Residents	1408	73.7%	30.4%	NA
Employees				
All	1563	46.1%	NA	NA
Direct Patient Care	963	NA	NA	56.3%

Salt Lake Valley Health District

	Number	Flu	Pneumococcal	Hepatitis B
Facilities	86	NA	NA	NA
Residents	6054	66.9%	39.5%	NA
Employees				
All	5299	42.6%	NA	NA
Direct Patient Care	3385	NA	NA	52.9%

Southeastern Utah Public Health District

	Number	Flu	Pneumococcal	Hepatitis B
Facilities	6	NA	NA	NA
Residents	257	90.7%	48.6%	NA
Employees All	294	41.2%	NA	NA
Direct Patient Care	193	NA	NA	61.1%

Southwest Utah Public Health District

	Number	Flu	Pneumococcal	Hepatitis B
Facilities	20	NA	NA	NA
Residents	532	74.6%	38.0%	NA
Employees All	774	59.0%	NA	NA
Direct Patient Care	460	NA	NA	66.3%

Summit County Health District

	Number	Flu	Pneumococcal	Hepatitis B
Facilities	1	NA	NA	NA
Residents	36	80.6%	72.2%	NA
Employees All	21	33.3%	NA	NA
Direct Patient Care	14	NA	NA	0%

Tooele County Health District

	Number	Flu	Pneumococcal	Hepatitis B
Facilities	4	NA	NA	NA
Residents	146	91.8%	67.8%	NA
Employees All	499	81.6%	NA	NA
Direct Patient Care	385	NA	NA	43.9%

TriCounty Health District				
	Number	Flu	Pneumococcal	Hepatitis B
Facilities	5	NA	NA	NA
Residents	213	80.3%	31.5%	NA
Employees All	500	62.0%	NA	NA
Direct Patient Care	361	NA	NA	61.5%

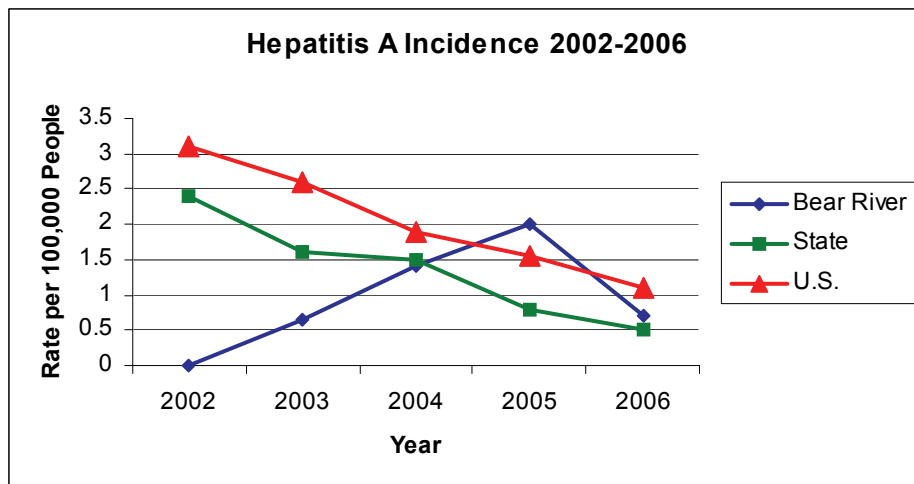
Utah County Health District				
	Number	Flu	Pneumococcal	Hepatitis B
Facilities	59	NA	NA	NA
Residents	2643	76.4%	58.0%	NA
Employees All	2939	45.6%	NA	NA
Direct Patient Care	2246	NA	NA	53.0%

Wasatch County Health District				
	Number	Flu	Pneumococcal	Hepatitis B
Facilities	1	NA	NA	NA
Residents	27	99.9%	92.6%	NA
Employees All	39	25.6%	NA	NA
Direct Patient Care	19	NA	NA	52.6%

Weber-Morgan Health District				
	Number	Flu	Pneumococcal	Hepatitis B
Facilities	22	NA	NA	NA
Residents	1827	74.6%	41.2%	NA
Employees All	1669	46.0%	NA	NA
Direct Patient Care	1215	NA	NA	64.7%

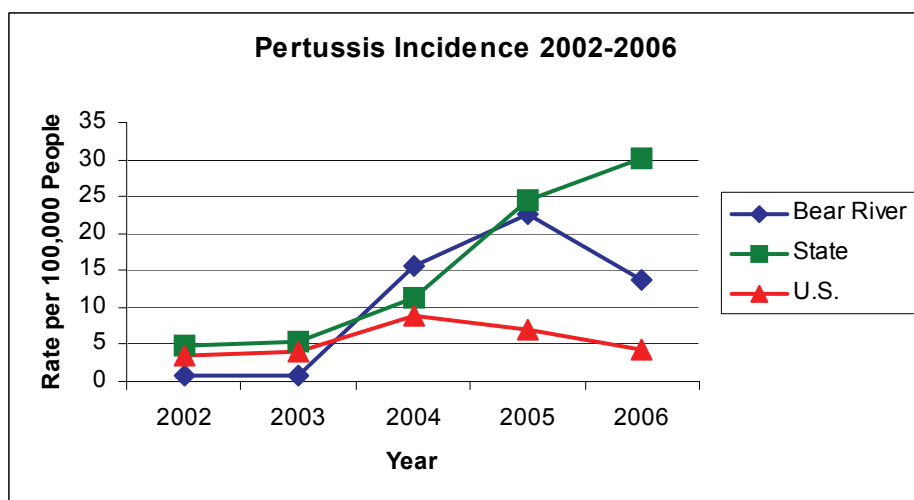
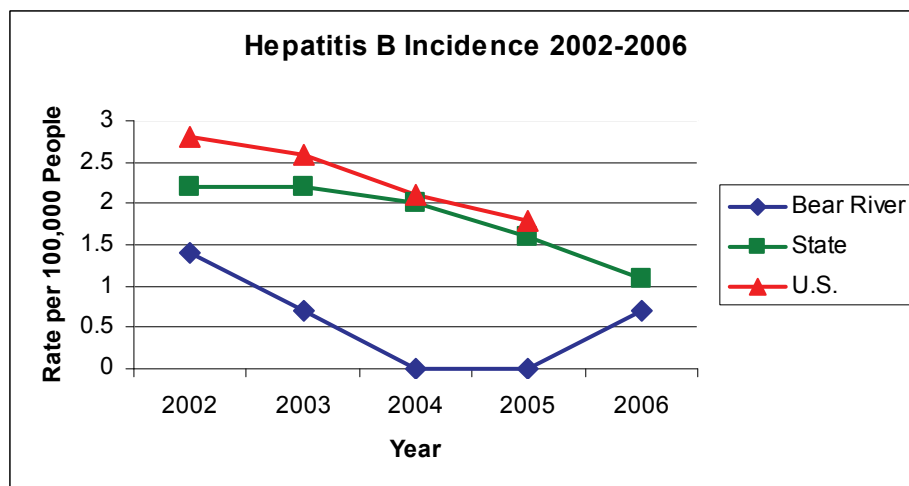
Appendix D Incidence of Disease

Hepatitis A, Hepatitis B and Pertussis are diseases that are preventable through immunization. Trends in vaccine preventable diseases are tracked with the intent that the data can be helpful in developing collaborative immunization campaign efforts. The following data were provided by the Office of Epidemiology, Utah Department of Health, for statewide and local health districts.



Hepatitis A			
Year	US	State	BR
2002	3.1	2.4	0.0
2003	2.6	1.6	0.7
2004	1.9	1.5	1.4
2005	1.5	0.8	2.0
2006	1.1	0.5	0.7

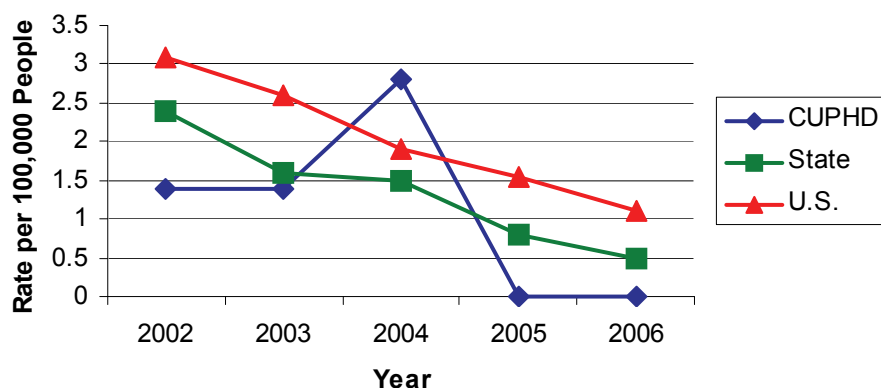
Hepatitis B			
Year	US	State	BR
2002	2.8	2.2	1.4
2003	2.6	2.2	0.7
2004	2.1	2.0	0.0
2005	1.8	1.6	0.0
2006	NA	1.1	0.7



Pertussis			
Year	US	State	BR
2002	3.5	4.9	0.7
2003	4.0	5.3	0.7
2004	8.9	11.2	15.7
2005	7.1	24.4	22.7
2006	4.3	30.1	13.8

Appendix D Incidence of Disease

Hepatitis A Incidence 2002-2006

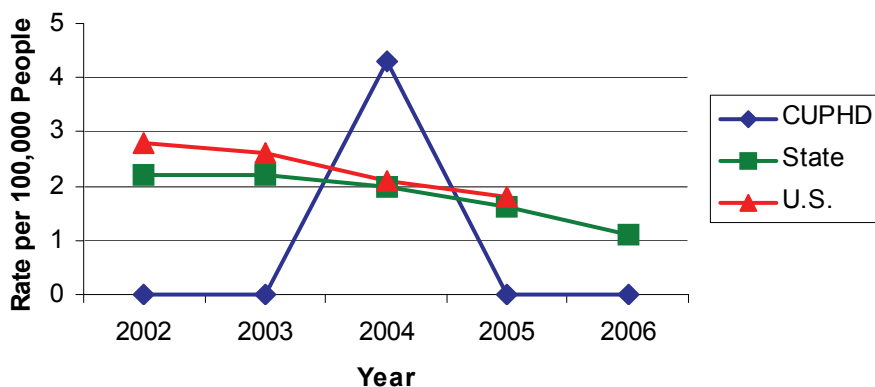


Hepatitis A			
Year	US	State	Central
2002	3.1	2.4	1.4
2003	2.6	1.6	1.4
2004	1.9	1.5	2.8
2005	1.5	0.8	0.0
2006	1.1	0.5	0.0

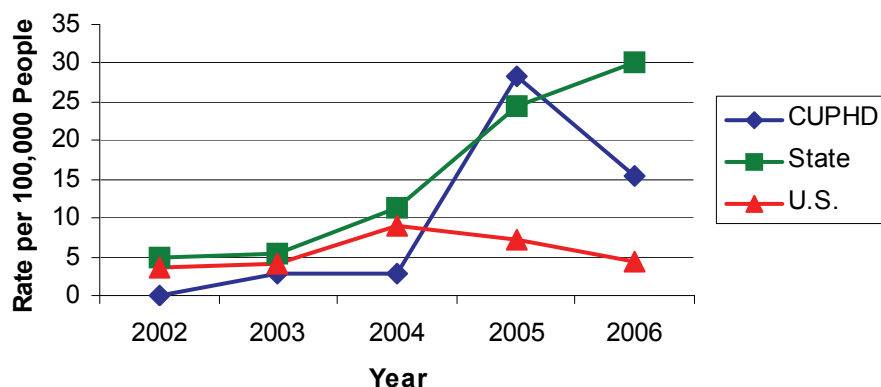
Hepatitis B

Year	US	State	Central
2002	2.8	2.2	0.0
2003	2.6	2.2	0.0
2004	2.1	2.0	4.3
2005	1.8	1.6	0.0
2006	NA	1.1	0.0

Hepatitis B Incidence 2002-2006



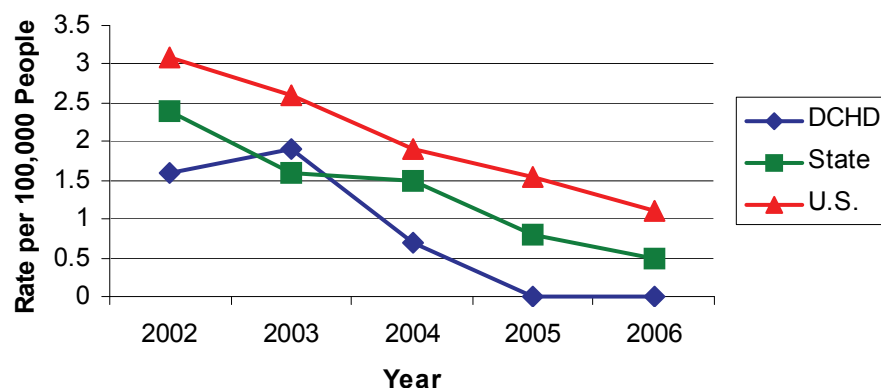
Pertussis Incidence 2002-2006



Pertussis			
Year	US	State	Central
2002	3.5	4.9	0.0
2003	4.0	5.3	2.9
2004	8.9	11.2	2.8
2005	7.1	24.4	28.2
2006	4.3	30.1	15.4

Appendix D Incidence of Disease

Hepatitis A Incidence 2002-2006



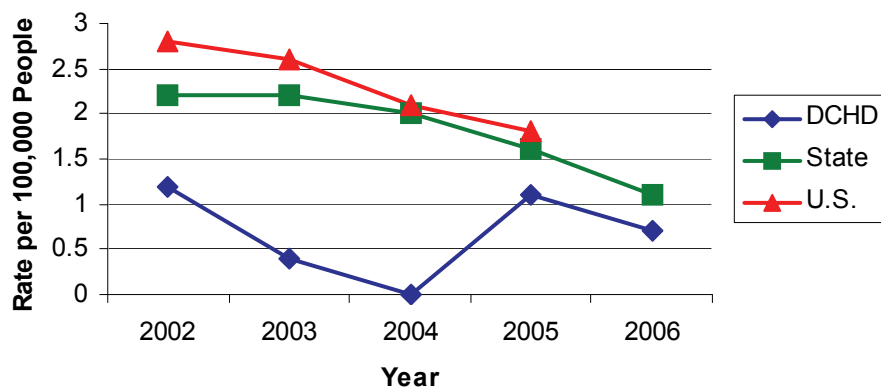
Hepatitis A

Year	US	State	Davis
2002	3.1	2.4	1.6
2003	2.6	1.6	1.9
2004	1.9	1.5	0.7
2005	1.5	0.8	0.0
2006	1.1	0.5	0.0

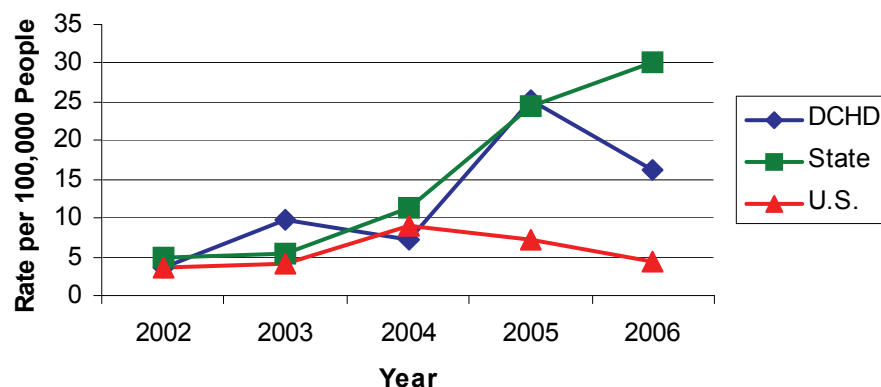
Hepatitis B

Year	US	State	Davis
2002	2.8	2.2	1.2
2003	2.6	2.2	0.4
2004	2.1	2.0	0.0
2005	1.8	1.6	1.1
2006	NA	1.1	0.7

Hepatitis B Incidence 2002-2006



Pertussis Incidence 2002-2006

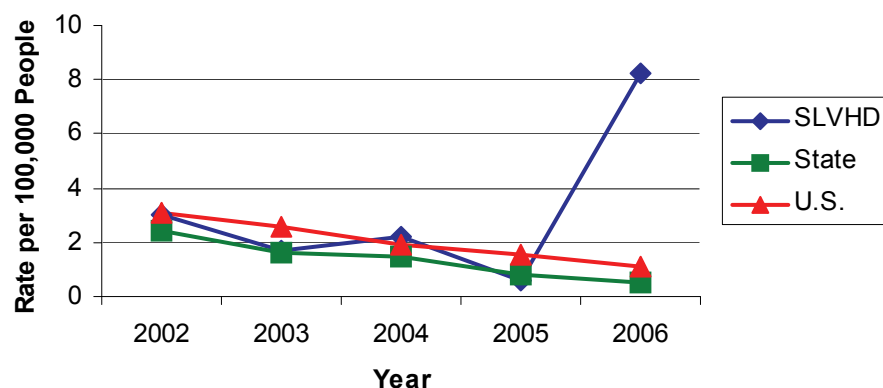


Pertussis

Year	US	State	Davis
2002	3.5	4.9	3.5
2003	4.0	5.3	9.9
2004	8.9	11.2	7.1
2005	7.1	24.4	25.3
2006	4.3	30.1	16.3

Appendix D Incidence of Disease

Hepatitis A Incidence 2002-2006

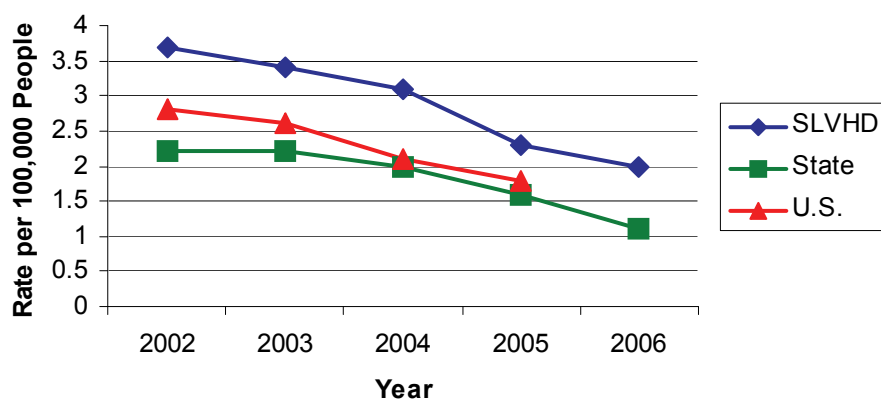


Hepatitis A			
Year	US	State	SLV
2002	3.1	2.4	3.0
2003	2.6	1.6	1.7
2004	1.9	1.5	2.2
2005	1.5	0.8	0.6
2006	1.1	0.5	8.2

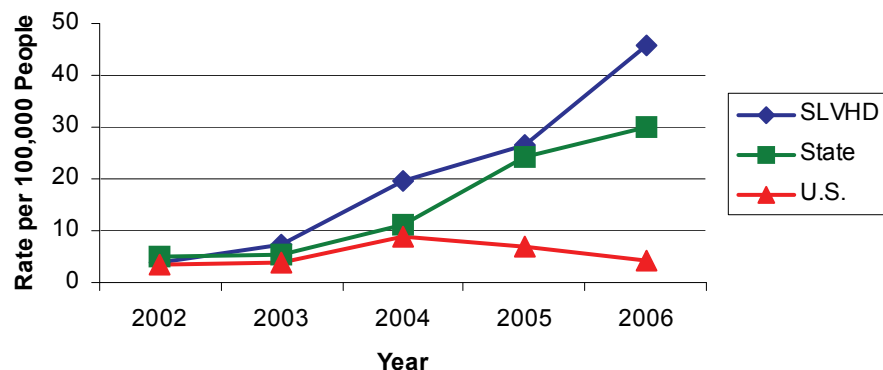
Hepatitis B

Year	US	State	SLV
2002	2.8	2.2	3.7
2003	2.6	2.2	3.4
2004	2.1	2.0	3.1
2005	1.8	1.6	2.3
2006	NA	1.1	2.0

Hepatitis B Incidence 2002-2006



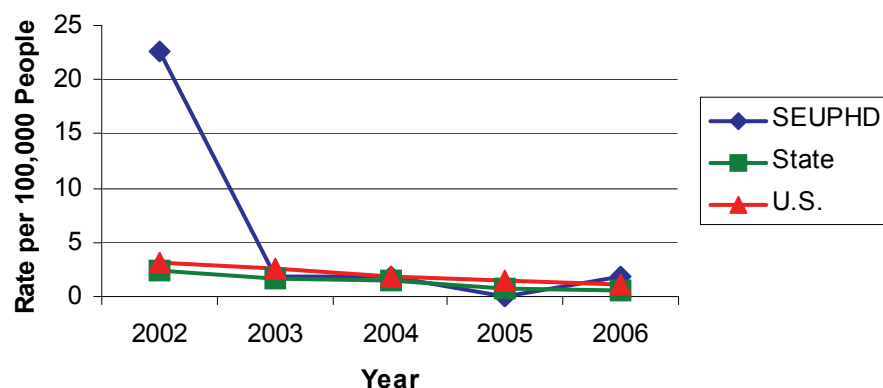
Pertussis Incidence 2002-2006



Pertussis			
Year	US	State	SLV
2002	3.5	4.9	4.0
2003	4.0	5.3	7.4
2004	8.9	11.2	19.7
2005	7.1	24.4	26.7
2006	4.3	30.1	45.6

Appendix D Incidence of Disease

Hepatitis A Incidence 2002-2006

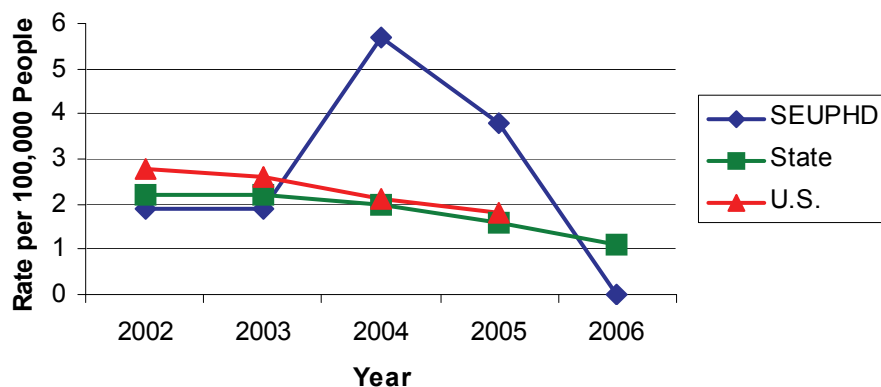


Hepatitis A			
Year	US	State	SE
2002	3.1	2.4	22.6
2003	2.6	1.6	1.9
2004	1.9	1.5	1.9
2005	1.5	0.8	0.0
2006	1.1	0.5	1.9

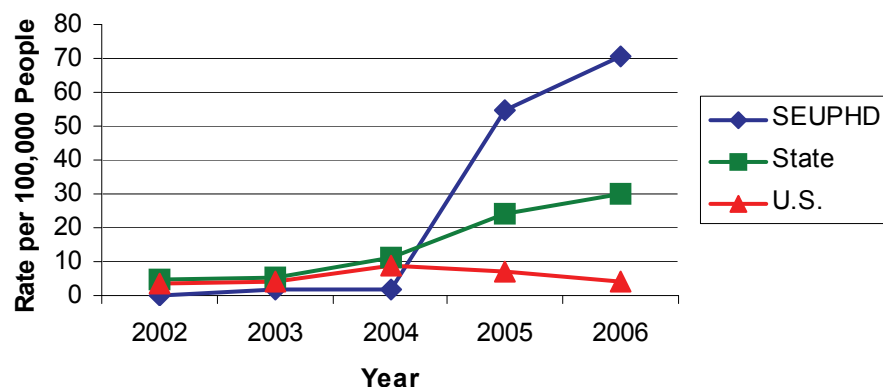
Hepatitis B

Year	US	State	SE
2002	2.8	2.2	1.9
2003	2.6	2.2	1.9
2004	2.1	2.0	5.7
2005	1.8	1.6	3.8
2006	NA	1.1	0.0

Hepatitis B Incidence 2002-2006

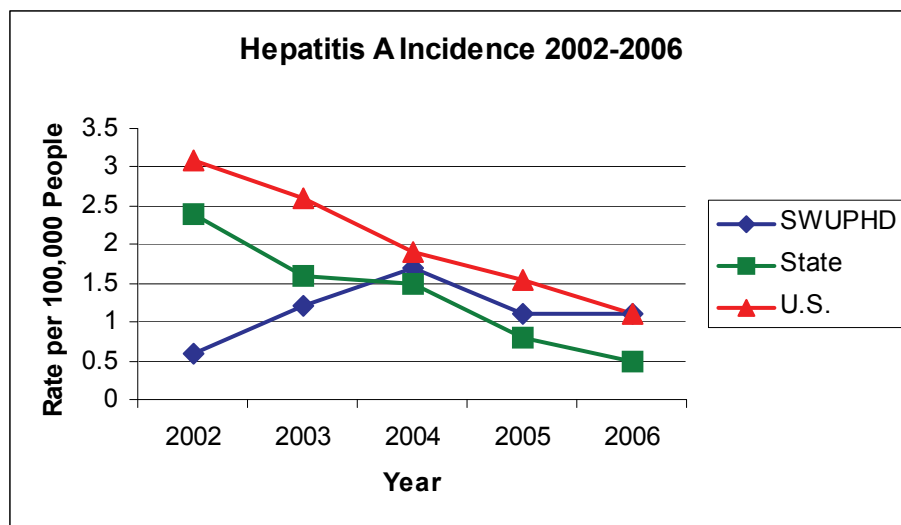


Pertussis Incidence 2002-2006



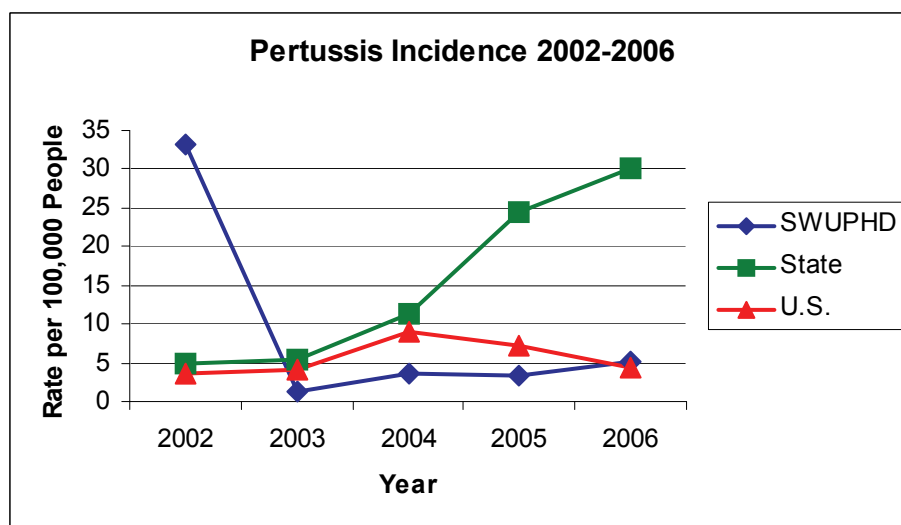
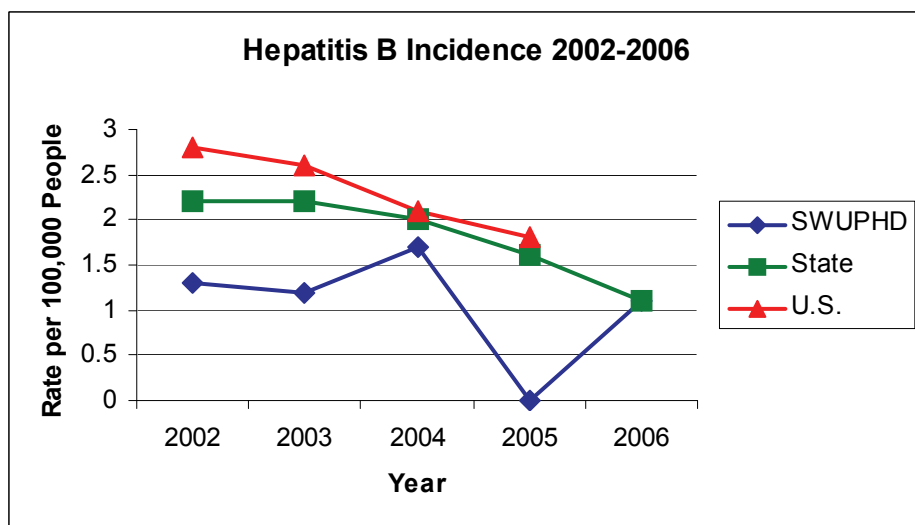
Pertussis			
Year	US	State	SE
2002	3.5	4.9	0.0
2003	4.0	5.3	1.9
2004	8.9	11.2	1.9
2005	7.1	24.4	54.9
2006	4.3	30.1	70.5

Appendix D Incidence of Disease



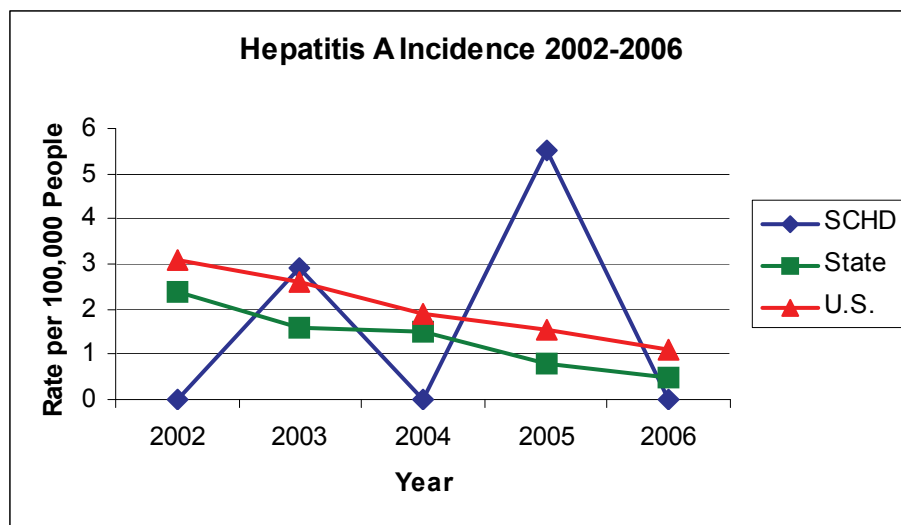
Hepatitis A			
Year	US	State	SW
2002	3.1	2.4	0.6
2003	2.6	1.6	1.2
2004	1.9	1.5	1.7
2005	1.5	0.8	1.1
2006	1.1	0.5	1.1

Hepatitis B			
Year	US	State	SW
2002	2.8	2.2	1.3
2003	2.6	2.2	1.2
2004	2.1	2.0	1.7
2005	1.8	1.6	0.0
2006	NA	1.1	1.1



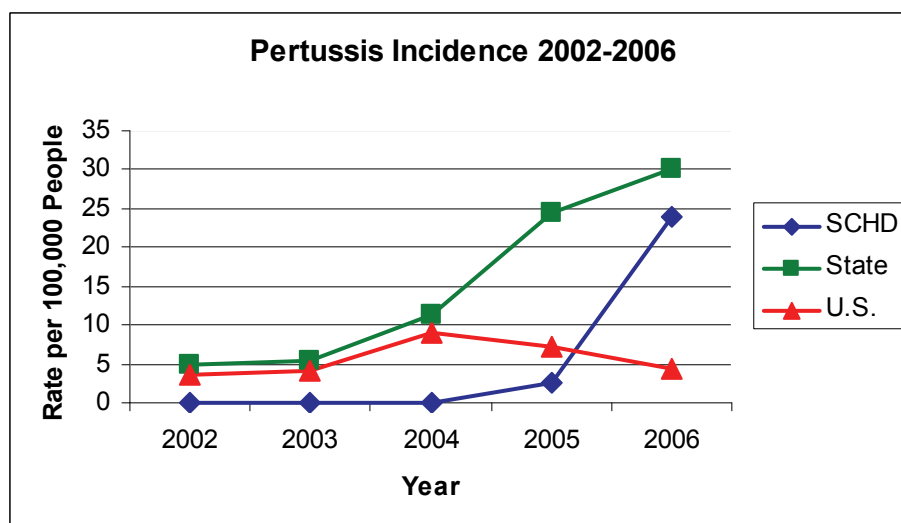
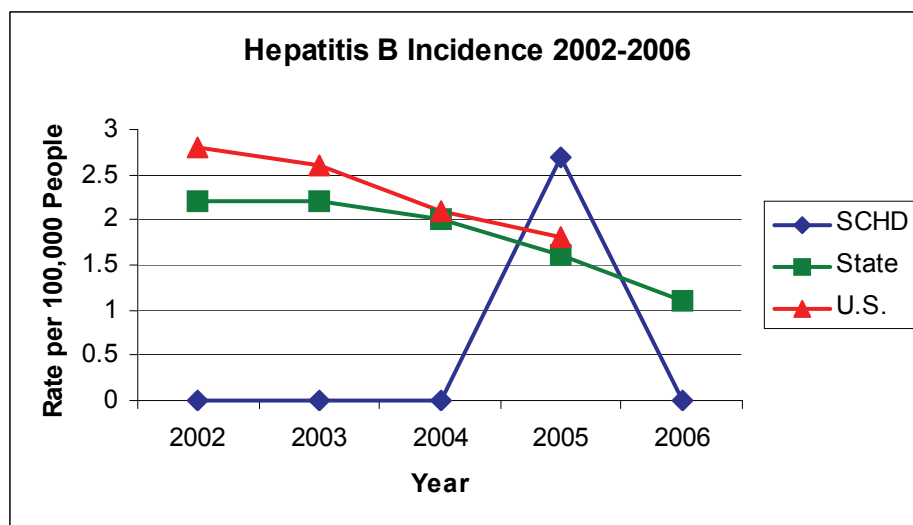
Pertussis			
Year	US	State	SW
2002	3.5	4.9	33.2
2003	4.0	5.3	1.2
2004	8.9	11.2	3.5
2005	7.1	24.4	3.3
2006	4.3	30.1	5.2

Appendix D Incidence of Disease

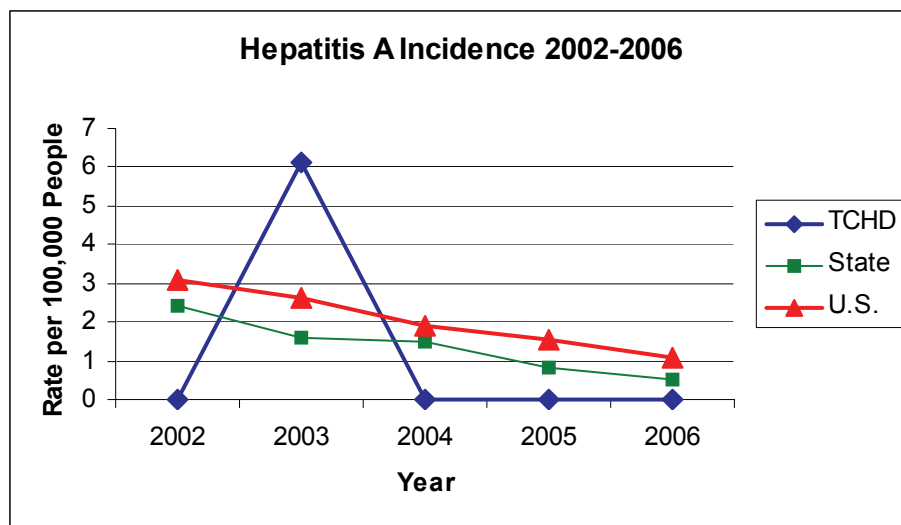


Hepatitis A			
Year	US	State	Sum
2002	3.1	2.4	0.0
2003	2.6	1.6	2.9
2004	1.9	1.5	0.0
2005	1.5	0.8	5.5
2006	1.1	0.5	0.0

Hepatitis B			
Year	US	State	Sum
2002	2.8	2.2	0.0
2003	2.6	2.2	0.0
2004	2.1	2.0	0.0
2005	1.8	1.6	2.7
2006	NA	1.1	0.0

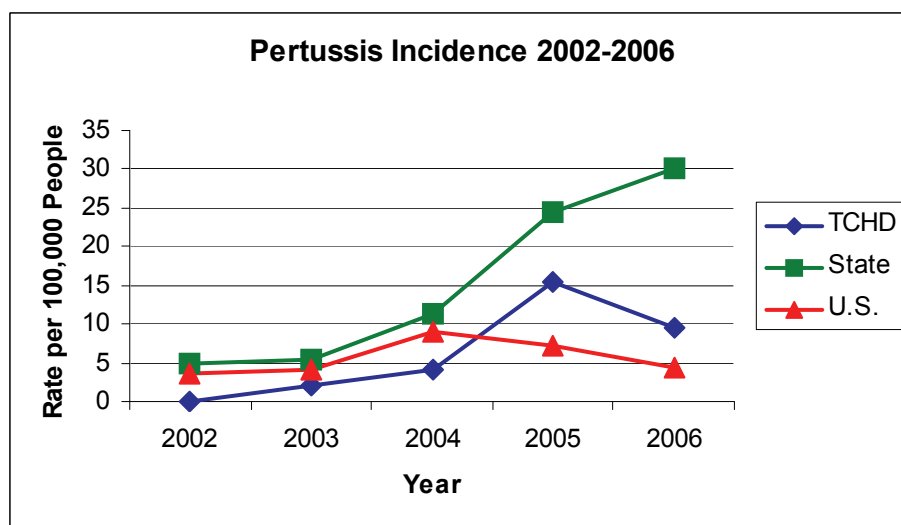
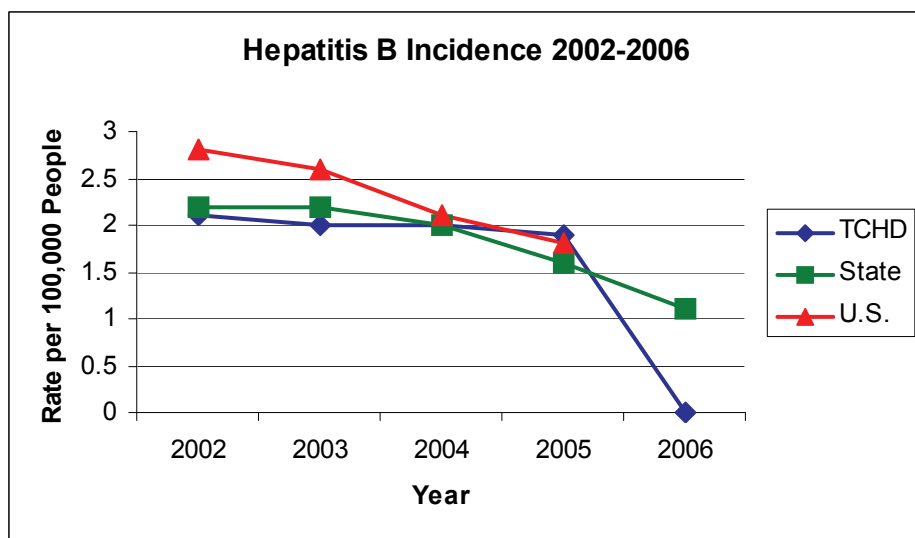


Pertussis			
Year	US	State	Sum
2002	3.5	4.9	0.0
2003	4.0	5.3	0.0
2004	8.9	11.2	0.0
2005	7.1	24.4	2.7
2006	4.3	30.1	23.9



Hepatitis A			
Year	US	State	Tooele
2002	3.1	2.4	0.0
2003	2.6	1.6	6.1
2004	1.9	1.5	0.0
2005	1.5	0.8	0.0
2006	1.1	0.5	0.0

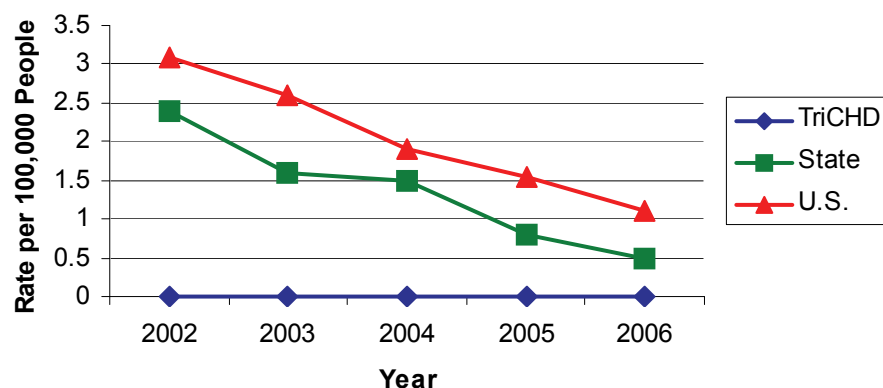
Hepatitis B			
Year	US	State	Tooele
2002	2.8	2.2	2.1
2003	2.6	2.2	2.0
2004	2.1	2.0	2.0
2005	1.8	1.6	1.9
2006	NA	1.1	0.0



Pertussis			
Year	US	State	Tooele
2002	3.5	4.9	0.0
2003	4.0	5.3	2.0
2004	8.9	11.2	4.0
2005	7.1	24.4	15.4
2006	4.3	30.1	9.4

Appendix D Incidence of Disease

Hepatitis A Incidence 2002-2006

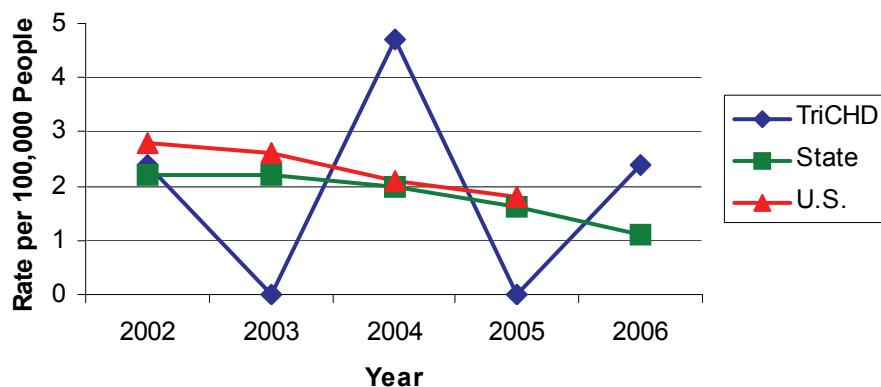


Hepatitis A			
Year	US	State	TriCo
2002	3.1	2.4	0.0
2003	2.6	1.6	0.0
2004	1.9	1.5	0.0
2005	1.5	0.8	0.0
2006	1.1	0.5	0.0

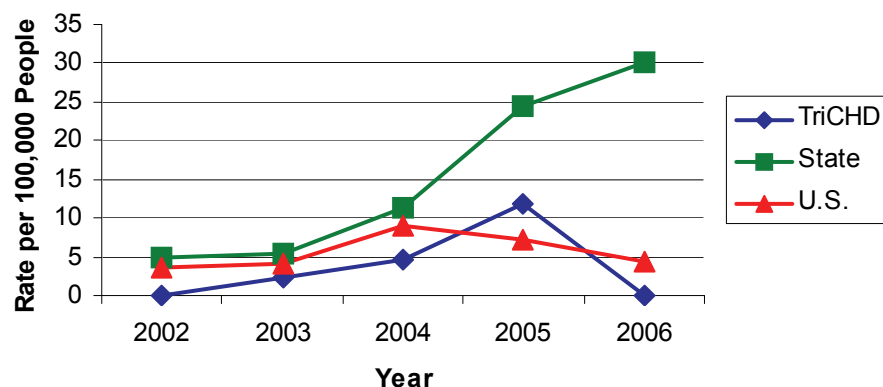
Hepatitis B

Year	US	State	TriCo
2002	2.8	2.2	2.4
2003	2.6	2.2	0.0
2004	2.1	2.0	4.7
2005	1.8	1.6	0.0
2006	NA	1.1	2.4

Hepatitis B Incidence 2002-2006



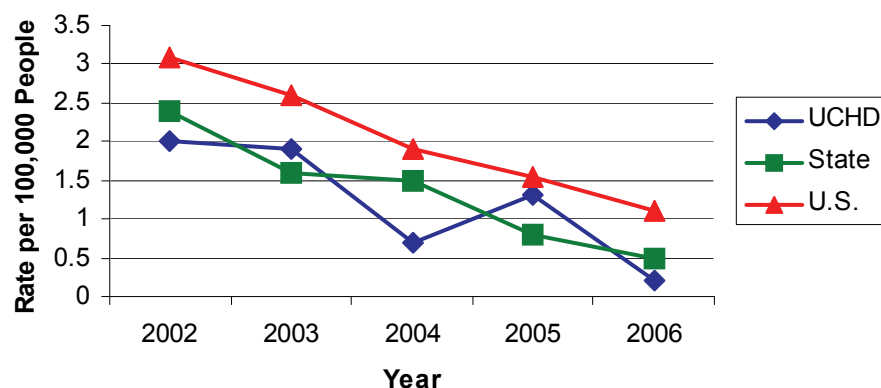
Pertussis Incidence 2002-2006



Pertussis			
Year	US	State	TriCo
2002	3.5	4.9	0.0
2003	4.0	5.3	2.4
2004	8.9	11.2	4.7
2005	7.1	24.4	11.8
2006	4.3	30.1	0.0

Appendix D Incidence of Disease

Hepatitis A Incidence 2002-2006



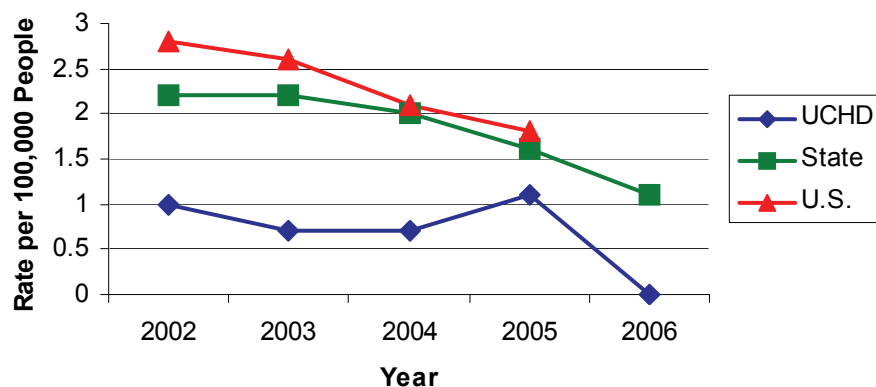
Hepatitis A

Year	US	State	UtahCo
2002	3.1	2.4	2.0
2003	2.6	1.6	1.9
2004	1.9	1.5	0.7
2005	1.5	0.8	1.3
2006	1.1	0.5	0.2

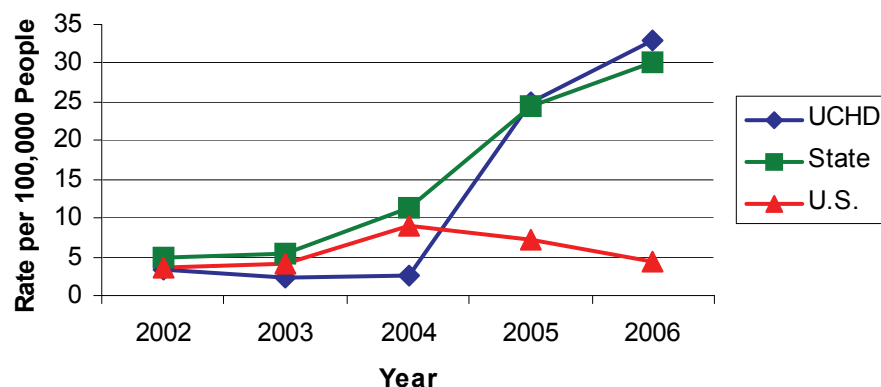
Hepatitis B

Year	US	State	UtahCo
2002	2.8	2.2	1.0
2003	2.6	2.2	0.7
2004	2.1	2.0	0.7
2005	1.8	1.6	1.1
2006	NA	1.1	0.0

Hepatitis B Incidence 2002-2006



Pertussis Incidence 2002-2006

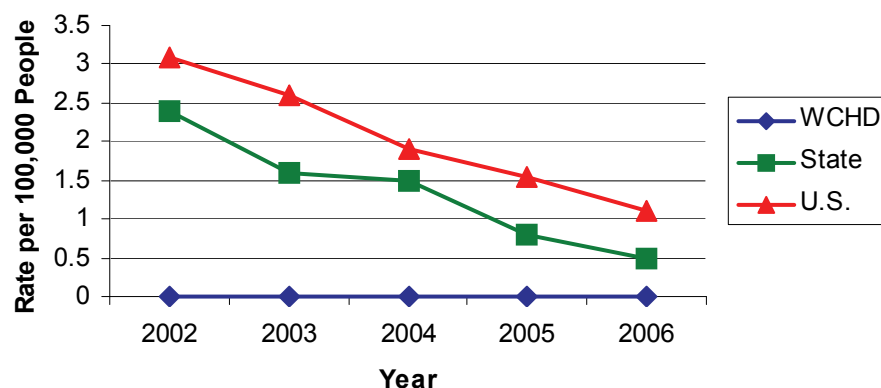


Pertussis

Year	US	State	UtahCo
2002	3.5	4.9	3.4
2003	4.0	5.3	2.4
2004	8.9	11.2	2.5
2005	7.1	24.4	24.9
2006	4.3	30.1	33.0

Appendix D Incidence of Disease

Hepatitis A Incidence 2002-2006

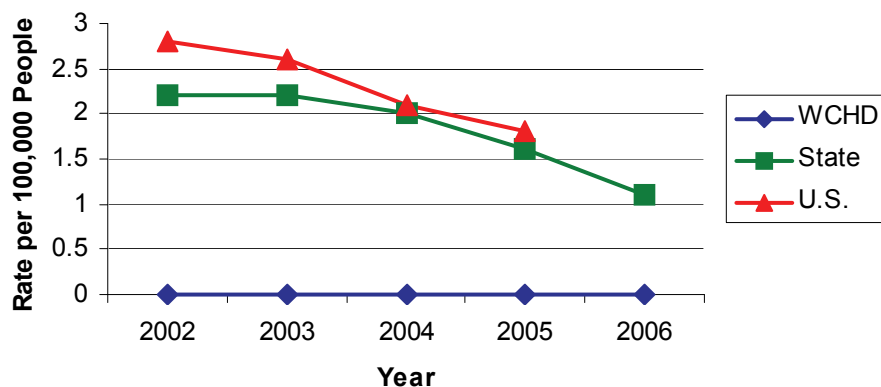


Hepatitis A			
Year	US	State	Was
2002	3.1	2.4	0.0
2003	2.6	1.6	0.0
2004	1.9	1.5	0.0
2005	1.5	0.8	0.0
2006	1.1	0.5	0.0

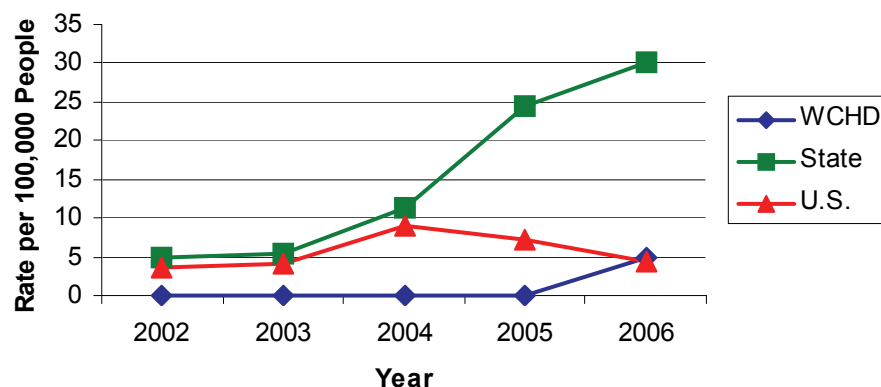
Hepatitis B

Year	US	State	Was
2002	2.8	2.2	0.0
2003	2.6	2.2	0.0
2004	2.1	2.0	0.0
2005	1.8	1.6	0.0
2006	NA	1.1	0.0

Hepatitis B Incidence 2002-2006



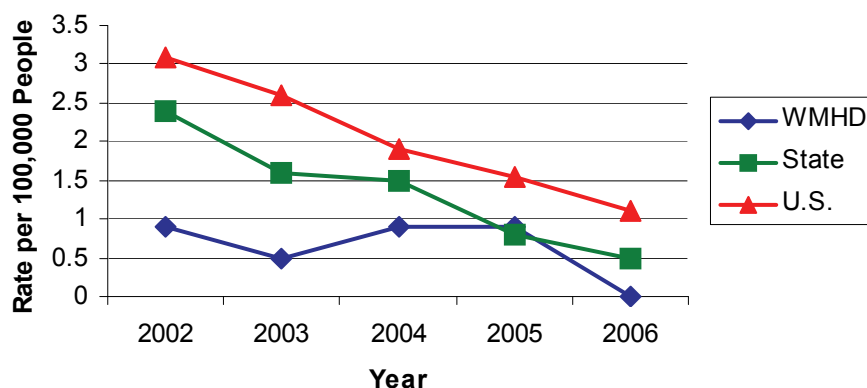
Pertussis Incidence 2002-2006



Pertussis			
Year	US	State	Was
2002	3.5	4.9	0.0
2003	4.0	5.3	0.0
2004	8.9	11.2	0.0
2005	7.1	24.4	0.0
2006	4.3	30.1	4.8

Appendix D Incidence of Disease

Hepatitis A Incidence 2002-2006

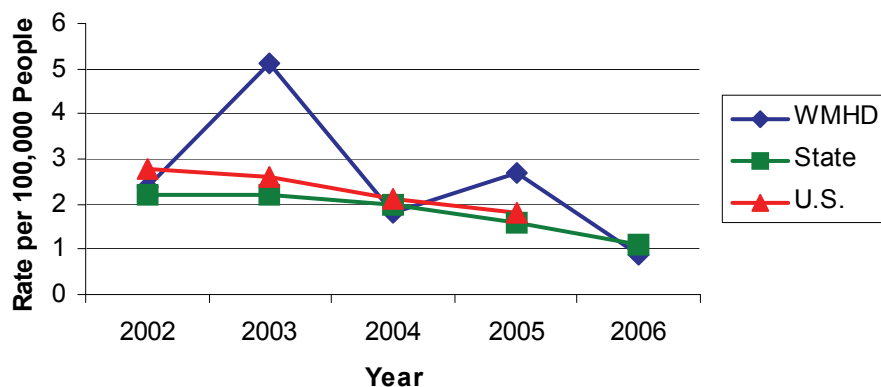


Hepatitis A			
Year	US	State	W-M
2002	3.1	2.4	0.9
2003	2.6	1.6	0.5
2004	1.9	1.5	0.9
2005	1.5	0.8	0.9
2006	1.1	0.5	0.0

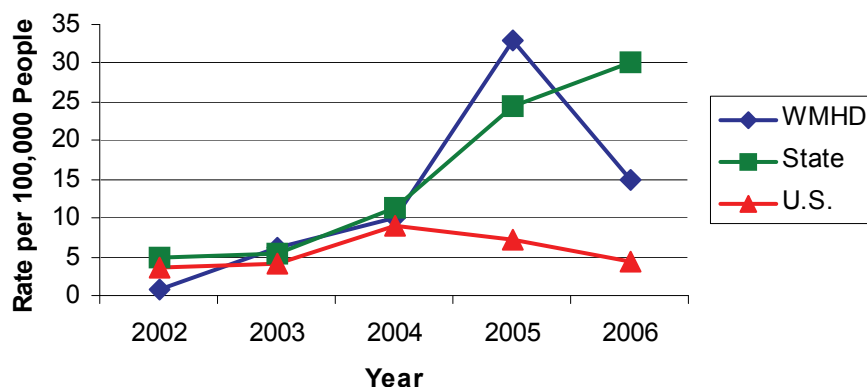
Hepatitis B

Year	US	State	W-M
2002	2.8	2.2	2.4
2003	2.6	2.2	5.1
2004	2.1	2.0	1.8
2005	1.8	1.6	2.7
2006	NA	1.1	0.9

Hepatitis B Incidence 2002-2006



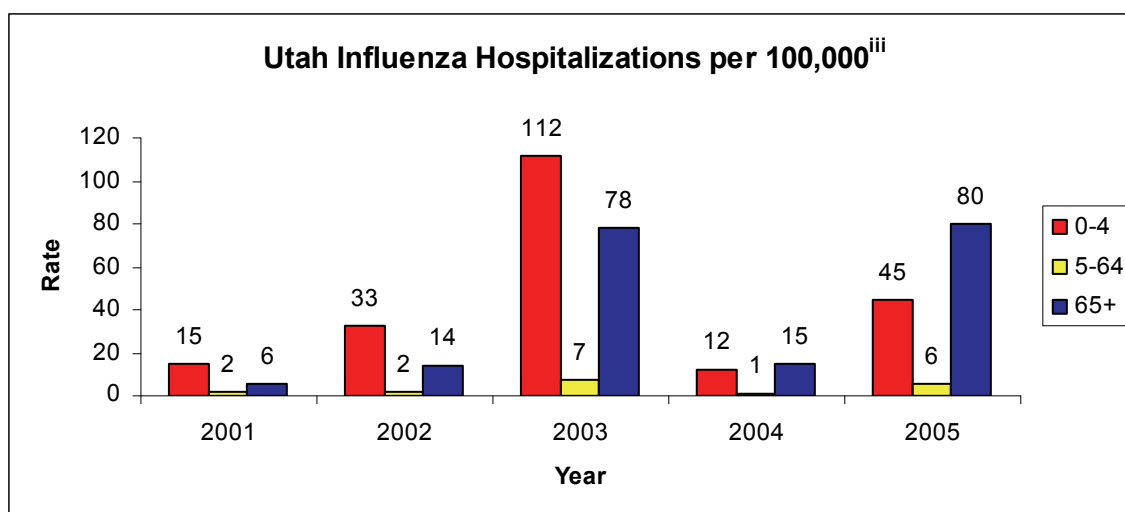
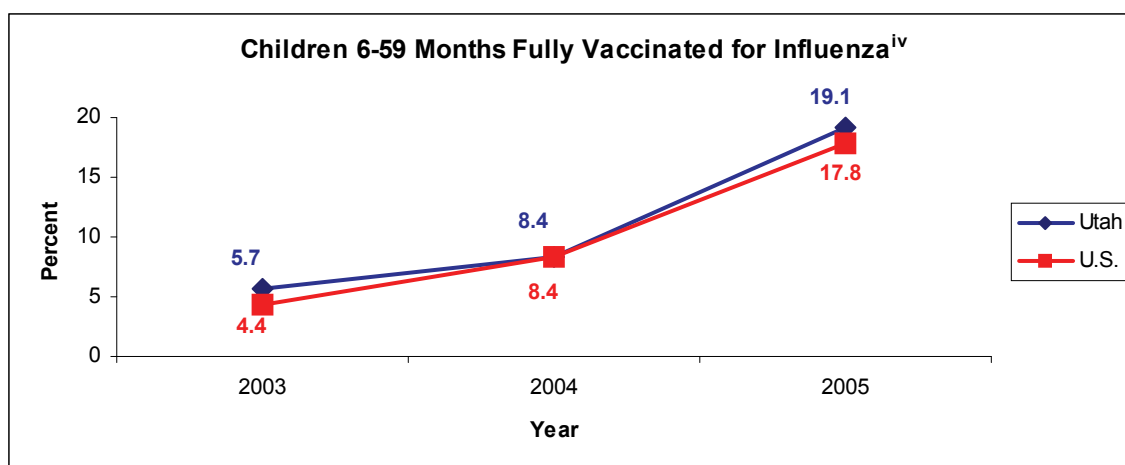
Pertussis Incidence 2002-2006



Pertussis			
Year	US	State	W-M
2002	3.5	4.9	0.9
2003	4.0	5.3	6.1
2004	8.9	11.2	10.1
2005	7.1	24.4	33.0
2006	4.3	30.1	14.8

Influenza (flu) is a very contagious viral infection of the nose, throat, bronchial tubes, and lungs. Influenza is a respiratory infection and generally does not involve gastrointestinal symptoms, except in very young children. It is estimated that 30 to 60 million U.S. residents get influenza each year. About 100,000 of them are hospitalized and an estimated 36,000 die each year from complications (primarily pneumonia) associated with the disease. Populations that are particularly susceptible to influenza include adults 65 years or older (more than 90% of all influenza deaths), children less than 24 months, people with cardiovascular disease, chronic respiratory disease, and people with chronic metabolic disease such as diabetes.ⁱ Each year in the U.S. there are between 19,000 and 96,000 hospitalizations among children 0-4 years.ⁱⁱ From 2001-2005 there was an average of 103 influenza-associated hospitalizations among Utah children 0-4 years.ⁱⁱⁱ During the same time period there was an average of 80 influenza hospitalizations among Utahns 65 and older.

Flu vaccine is up to 90% effective in preventing illness for healthy populations younger than 65ⁱⁱ, but effectiveness is contingent upon the strains used in the vaccine being similar to what circulates during flu season. For populations older than 65 years, the vaccine is 30-40% effective in preventing illness, 50-60% in preventing hospitalization, and 80% effective in preventing death. As indicated below, Utah is on par with national flu vaccine rates for children younger than five years but there is still much room for improvement. Charts for flu vaccine among adults 50 years and older can be found on the *Child and Adult Immunization* pages in the main body of this report.

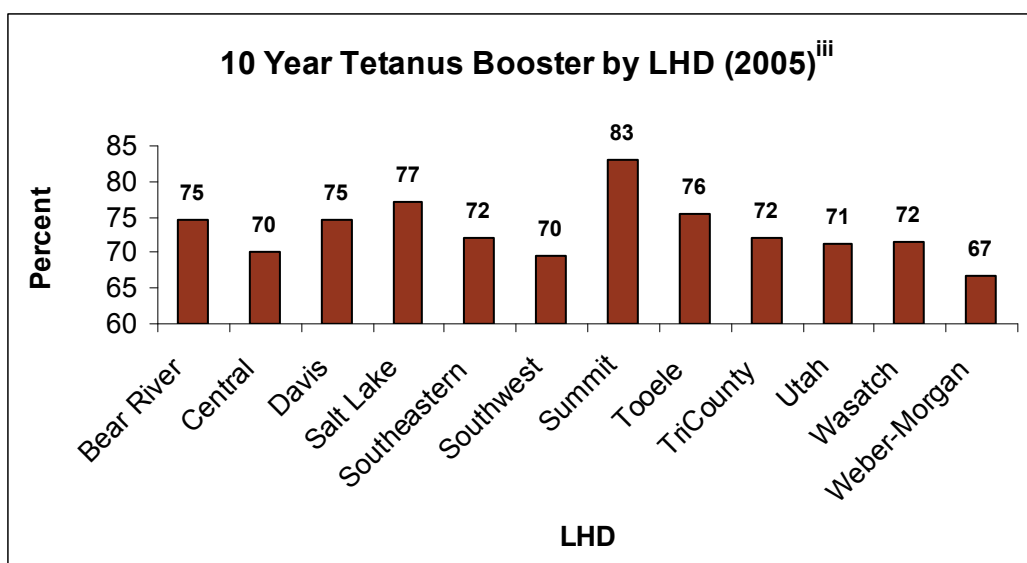


Tetanus is an acute and often fatal disease caused by an exotoxin produced by *Clostridium tetani*. It is the only vaccine preventable disease that is infectious but not contagious. The bacteria typically enters the body through a break in the skin, which may be caused by a major or minor wound (typically puncture, laceration, or abrasion). Death occurs in about 10-20% of all cases.ⁱ

After receiving a primary series of tetanus antitoxin nearly all recipients are immune. After ten years, most people have immunity that approaches the minimal protection level, and require a booster vaccine. If someone receives a wound that is other than clean or minor they may need to receive a booster dose prior to the ten-year mark.ⁱ

During the period of 1996-2000, there were 202 cases of tetanus nationally. Seventy-two were greater than 60 years, 116 were 20-59 years and 14 were less than 20 years. Almost all cases of tetanus were among adults who either did not receive the primary vaccination series or who had not received a ten-year booster doseⁱⁱ. These statistics convey the importance of adults receiving adequate booster doses. The following data were collected from the 2005 Utah *Health Status Survey*. The majority of Utahns received a booster dose, but the percentage decreases as age increases. Local Health Department ten-year tetanus booster percentages do not vary much from the state level of 74%.

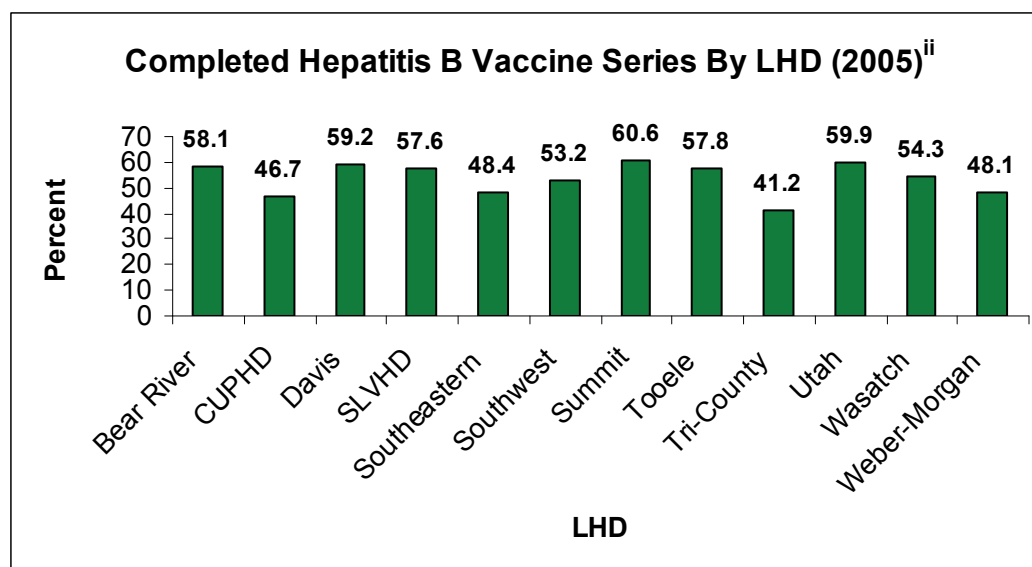
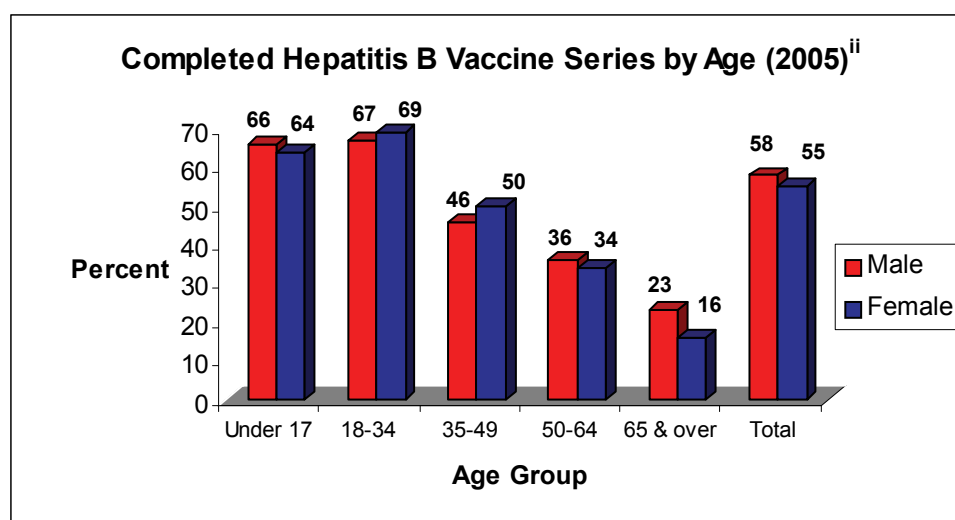
Percentage of Utahns Who Have Had a Tetanus Shot in the Past 10 Years ⁱⁱⁱ						
Age	11 to 17	18-34	35-49	50-64	65 & Over	Total
Utah Total	83.0	78.3	69.2	69.4	56.2	73.8
Males	86.7	86.2	76.1	67.9	67.2	79.7
Females	79.4	71.0	62.0	70.7	49.3	68.6



Sources

ⁱ Epidemiology and Prevention of Vaccine-Preventable Diseases (CDC Pink Book), ⁱⁱ VPD Surveillance Manual 3rd Edition, 2002, ⁱⁱⁱ 2005 Health Status Survey

Hepatitis B is second only to tobacco among known human carcinogens and is the cause of up to 80% of liver cancers. In the U.S. there are between 1 and 1.25 million persons infected with chronic Hepatitis B and 5,000 to 8,000 become chronically infected each year. Persons with chronic infections may be asymptomatic, but can still infect others. Transmission occurs by parenteral or mucosal exposure to body fluids from someone with acute or chronic infection. In the U.S., the most important mode of transmission is through sexual contact. Adult candidates for vaccination include men who have sex with men, heterosexuals who have multiple partners, persons diagnosed with a sexually transmitted disease (STD), prostitutes, injection drug users, inmates of long-term correctional institutions, persons receiving hemodialysis, and health care workers. Ninety to 95% of teens and adults, and 98-100% of infants receiving a completed series (3 doses) will develop sufficient antibodies for protection against infection.ⁱ The percentage of Utah adults who have completed the vaccine series is slightly above 50%. The percentage drops as age increases, which is expected since the vaccine wasn't available until 1981. There is not much variation across local health districts.



Sources:

ⁱ Epidemiology and Prevention of Vaccine-Preventable Diseases (CDC Pink Book),

ⁱⁱ 2005 Utah Health Status Survey

Appendix E: Additional Antigens

Varicella (Chicken Pox)

2007

Varicella, or chickenpox, is a relatively mild infection in young children, causing approximately 11,000 hospitalizations in the U.S. each year prior to the development of a vaccine in 1995. In Utah, 82% and 73% of children are up-to-date (UTD) at age two years with varicella vaccine in public and private settings respectively. Outbreaks in settings, such as day care centers or schools, can still occur and last up to six months, causing a major disruption to community, family, and work life of families. After one dose of varicella vaccine, 97% of children 12 months to 12 years develop antibodies. It is now recommended that children 12 months and older receive two doses of varicella vaccine, at least three months apart. Varicella vaccine is also recommended for all adolescents and adults that do not have evidence of varicella immunity. After one dose of varicella vaccine, 78% of adults and adolescents have evidence of immunity, and after a second dose, 99% develop antibodies. In field conditions, varicella vaccine is 80-85% effective against infection and over 95% effective against severe disease.ⁱ

Varicella can also cause serious problems in adults who are infected. Herpes zoster, or shingles, is a latent infection that can cause debilitating symptoms (e.g. rash, blisters, extreme pain, fever, chills, headache, upset stomach). Anyone who has recovered from chickenpox can develop shingles, but it is more common among people over 50 years. An estimated 300,000 cases of zoster occur each year. On May 25, 2006, the Federal Drug Administration (FDA) approved a vaccine (ZostavaxTM) for use among people 60 years and older for the prevention of shingles. In a clinical trial involving thousands of participants, ZostavaxTM prevented shingles in 51% of the participants and post-herpetic neuralgia in 67% of the participants. The Advisory Committee on Immunization Practices (ACIP) recommends a single dose of Herpes Zoster vaccine for adults 60 years and older. This recommendation will be reviewed by the Director of Centers for Disease Control and Prevention (CDC) and the Department of Health and Human Services.^{i, ii}

According to the 2005 Utah Health Status Survey, there are approximately 218,500 Utahns (8.6% of total population) that have never had chickenpox or the chickenpox vaccine. The majority of those unvaccinated are 17 years and younger. There are 186,600 Utah adults 65 years and older who have had chickenpox and are at increased risk for shingles (no data available for Utah adults 60-64). The total 2006 Utah population 60 years and older, and therefore eligible to receive Zoster vaccine, was 301,214.

Varicella and Zoster Vaccine Need			
Local Health District	# People who have never had chicken pox or vaccine (2005) ⁱⁱⁱ	Percent of total population	2006 population 60 & over (eligible for Zoster vaccine)
Bear River	13,905	9.3	16,511
Central	7,346	10.3	10,744
Davis	26,274	9.5	30,195
Salt Lake	69,548	7.2	114,592
Southeastern	6,132	11.6	8,647
Southwest	13,495	7.4	34,766
Summit	3,517	9.7	3,898
Tooele	3,935	7.6	5,209
TriCounty	4,027	9.5	6,063
Utah County	44,077	9.7	38,325
Wasatch	1,538	7.6	2,213
Weber-Morgan	24,432	11.0	30,051
Total, All Utahans	218,226	8.6	301,214

Sources: ⁱ Epidemiology and Prevention of Vaccine-Preventable Diseases (CDC Pink Book),

ⁱⁱ <http://www.cdc.gov/vaccines/vpd-vac>, ⁱⁱⁱ 2005 Utah Health Status Survey

The Utah Department of Health utilized Utah Statewide Immunization Information System (USIIS) immunization records to determine if children who are born later in a family are more at risk for inadequate immunization. They compared Utah Birth Certificate data with USIIS data for children 19 to 35 months of age as of December 31, 2004. The study matched 47,822 active patients in USIIS to Birth Certificate data. Patients were only included in the study if they had at least one immunization which was not the birth dose Hepatitis B. Patients were considered adequately immunized if they received 4 DTaP, 3 Polio, 1 MMR, 3 Hib, and 3 Hep B. The following variables were included in their analysis:

- ◆ Birth order of the child
- ◆ Rural vs. Urban
- ◆ Mother's race
- ◆ Mother's education level
- ◆ Mother's age
- ◆ Marital status
- ◆ Father's race
- ◆ Father's education level
- ◆ Father's age

Only 57% of the children were adequately immunized with the 4:3:1:3:3 series. Immunization rates only increased by 3% when using 3 DTaP, 3 Polio, 1 MMR, 3 Hib, and 3 Hep B as the standard. This indicates that the fourth dose of DTP may not be the principal factor in lower than desired immunization rates. Children were less likely to be UTD if they were born third or later and if their mother was younger than 20 years. They were far more likely to be UTD at two years if they were UTD at three months.

Key Findings		
Category	Odds Ratio for immunization at age 19-35 months	P-value
Third or subsequent born child	0.83	<0.0001
Child's mother is younger than 20	0.83	<0.0001
Up to date at 3 months	6.6	<0.0001

Implications of Birth Order Study:

This knowledge can assist in making decisions about appropriate intervention strategies (e.g. target audience of young mothers; clinic goal of having patients UTD at three months).

USIIS data is useful to answer questions about children's immunization status and immunization trends.

Race/ethnicity data were reported by the Weber-Morgan (WMHD) and the Salt Lake Valley Health Departments (SLVHD). Because the data were gathered and reported differently, they could not be grouped together. The WMHD collected race/ethnicity data from July 1, 2005 through June 30, 2006. The race/ethnicity of the child was recorded for each vaccination; therefore each child could be counted more than once. The SLVHD collected race/ethnicity data from January 1, 2006 through December 31, 2006 and there were no duplicates. For both health departments, "Hispanic" is mutually exclusive from all other races.

The SLVHD data were compared to 2005 race/ethnicity population data from Utah's Indicator-Based Information System for Public Health (IBIS-PH) to determine if there were differences between the race/ethnicity of children who visited these public health clinics and the general population. Comparisons couldn't be made to WMHD data because children could be counted more than once and WMHD data had a different age structure than the 2005 IBIS-PH data. A larger number of Hispanic, Black, and Asian children received vaccinations at the public clinics than was expected. At SLVHD clinics, 41% of the patients were Hispanic, representing 18% of the general population, 3.2 % of the patients were Black, representing 1.2% of the population, and 4% of the patients were Asian, representing 2.3% of the population.

WMHD: Number of Visits to Immunization Clinics Based on Age and Race/Ethnicity 2005-2006

Age (Years)	White	Black	Hispanic	Asian	American Indian	Pacific Islander	Other	Unknown
<1	551	10	437	5	0	2	2	0
1-2	1,105	30	771	21	6	0	0	0
3-6	2,061	59	1,018	42	12	0	1	0
7-18	2,039	150	952	81	22	11	8	3
Total	5,756	249	3,178	149	40	13	11	3

SLVHD: Number of Patients visiting Clinics Based on Age and Race/Ethnicity 2006

Age (Years)	White	Black	Hispanic	Asian	American Indian	Other	None
0-1	1,385	111	2,488	136	25	145	2
2-6	3,017	246	3,481	305	36	360	16
7-19	5,270	337	2,912	427	68	499	409
Total	9,672	694	8,881	868	129	1,004	427
Percent of total	44.6	3.2	41.0	4.0	0.6	4.6	2.0

1. *Governor's Office of Planning and Budget*. Retrieved on March 15, 2007 from Utah Department of Health, Center for Health Data, Indicator-Based Information System for Public Health website: <http://ibis.health.utah.gov/>
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9. Utah Statewide Immunization Information System. *2005 program data* [Data file]. Salt Lake City, UT: Utah Department of Health.
10. Utah Women, Infants, and Children (WIC) Program. (n.d.). *Monthly Participation Reports 2005*. Salt Lake City, UT: Utah Department of Health. **Note: numbers reported are the average of the 12 months in calendar year 2005.**
11. Utah Immunization Program (November 2005). *Licensed and Reporting Unlicensed Child Care Centers and Preschools: Child Care Annual Summary Report*. Salt Lake City, UT: Utah Department of Health.
12. Utah Immunization Program (November 2005). *Head Start: Child Care Annual Summary Report*. Salt Lake City, UT: Utah Department of Health.
13. Utah State Office of Education (2006). *Annual Report of the State Superintendent of Public Instruction: Utah 2005-2006*. Retrieved June 7, 2007 from <http://www.schools.utah.gov/default/AnnualReport.pdf>
14. *Behavioral Risk Factor Surveillance System*. Retrieved on June 6, 2007 from Utah Department of Health, Center for Health Data, Indicator-Based Information System for Public Health website: <http://ibis.health.utah.gov/>

Immunization Program, Maternal and Child Health Bureau

Division of Community and Family Health Services
Utah Department of Health
PO Box 142001
Salt Lake City, Utah 84114-2001
Phone: (801) 538-9450
Fax: (801) 538-9440
Websites: www.immunize-utah.org
www.usiis.org

Utah Statewide Immunization Information System

Division of Community and Family Health Services
Utah Department of Health
Helpline: (801) 538-3440
(800) 678-3440
Websites: www.immunize-utah.org
www.usiis.org

Data Resources Program, Maternal and Child Health Bureau

Division of Community and Family Health Services
Utah Department of Health
PO Box 142001
Salt Lake City, Utah 84114-2001
Phone: (801) 538-6916
Fax: (801) 538-6591
Website: www.health.utah.gov/drps

Child Adolescent School Health Program, Maternal and Child Health Bureau

Division of Community and Family Health Services
Utah Department of Health
PO Box 142001
Salt Lake City, Utah 84114-2001
Phone: (801) 538-9459
Fax: (801) 538-9409
Website: www.health.utah.gov/cash

Women Infants and Children Program, Maternal and Child Health Bureau

Division of Community and Family Health Services
Utah Department of Health
PO Box 141013
Salt Lake City, Utah 84114-1013
Phone: (801) 538-6620
Fax: (801) 538-6729
Website: www.health.utah.gov/wic

Other Resources Available

National Immunization Program
National Immunization Data and Statistics
Immunization Action Coalition
Healthy People 2010
Utah Department of Health
Utah Maternal and Child Health Bureau
Utah Office of Public Health Assessment
Office of Health Care Statistics
Utah Medicaid Program

www.cdc.gov/vaccines
www.cdc.gov/vaccines/stats-surv/default.htm
www.immunize.org
www.healthypeople.gov
www.health.utah.gov
www.health.utah.gov/cfhs/mch
<http://ibis.health.utah.gov>
www.health.utah.gov/hda
www.health.utah.gov/medicaid